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ABSTRACT

A study compared public, private, and proprietary postsecondary institutions in terms of job placement activities and services for graduates and student retention. A 10-item questionnaire was mailed to 300 randomly selected colleges and universities from 4 geographical areas of the United States--Northeast, Midwest, South, and West. Data from the 160 usable responses indicated that the proprietary institutions were generally smaller and were more likely to offer only short-term, skill-intensive training programs. College-sponsored job interviews were the most beneficial form of job placement assistance provided. Graduates from proprietary institutions sought employment immediately following graduation at a significantly higher rate than did graduates from public and nonproprietary institutions. Graduates from proprietary institutions were most likely to gain employment and work in their selected career fields. Graduates from midwestern proprietary institutions gained employment in their selected career area at a rate of 93 percent compared with a rate of 53.46 for graduates from public institutions located in the South. Private and proprietary institutions were more likely to retain students until graduation, and graduates from proprietary institutions took an average of 4.61 weeks to find employment as opposed to 9.55 weeks from public and 11.21 weeks from private institutions. (A copy of the survey instrument is appended to this report.) (MN)

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ABSTRACT

A MARKETPLACE ASSESSMENT OF CAREER EDUCATION ALTERNATIVES

BY

RICHARD P. SWANSON

B.S., UNIVERSITY OF SOUTHERN MISSISSIPPI, 1969

M.B.A., UNIVERSITY OF NEVADA, LAS VEGAS, 1972

A DOCTORAL PROJECT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS OF THE DEGREE OF
DOCTOR OF BUSINESS ADMINISTRATION

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Abstract

This study asked, "What is the state of the art of career education in this country? How do public, private, and proprietary postsecondary institutions compare in terms of graduate job placement activities and student retention?"

The subjects in this study consisted of 300 colleges and universities selected from four geographical areas of the country: Northeast, Midwest, South and West. Twenty-five postsecondary institutions, proprietary, public and private, from each of the four geographical areas were randomly selected. A letter of transmittal and ten-item questionnaire were mailed to the job placement officer at the selected institutions in August, 1985. On October 15, 1985, a total of 160 usable questionnaires had been returned. The data were subjected to an analysis of variance "F" and "T" tests to test for significant differences. Evaluations of the data were conducted by geographical region, followed by a summary evaluation of the data which had been collected nationally.

Results of the study showed: (1) Proprietary institutions were generally smaller and were more likely to offer only short-term, skill-intensive training programs. (2) College-sponsored job interviews were the most beneficial assistance activities rendered in the graduate job

placement functions. (3) Graduates from proprietary institutions sought employment immediately following graduation at a significantly higher rate than those of private and public institutions. (4) Graduates from proprietary institutions are more likely to gain employment and to work in their selected career areas than are the graduates from the other two institutional types. (5) Graduates from Midwestern proprietary institutions gained employment in their career areas at a rate of 93 percent compared to a low rate of 53.46 percent for graduates from public institutions located in the South. (6) Graduates from proprietary institutions took an average 4.61 weeks to gain employment in their career areas compared to 9.55 weeks from public and 11.21 weeks from private institutions. (7) Private and proprietary institutions were more likely to retain their students until graduation than were public institutions.

On the basis of these findings, the study concluded that career education in this country is an effective way to equalize graduates' employment opportunities and that graduates from proprietary institutions, which offer short-term skill intensive training, are far more likely to gain employment in their chosen professions, than are graduates from public and private postsecondary institutions.

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TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION	1
	Statement of the Problem	
	The Purpose	
	Specific Objectives	
	Significance of the Study	
	Limitations	
	Definition of Terms	
	Research Method	
	Organization of the Study	
II.	LITERATURE REVIEW	22
	Career Education	
	Attrition//Retention	
	Theories of Attrition	
	Summary	
III.	RESEARCH METHODOLOGY	44
	The Sample	
	Validation of the Questionnaire	
	Data Collection	
IV.	PRESENTATION OF DATA	51
	Question 1	52
	Northeast	
	Midwest	
	South	
	West	
	Question 2	67
	Northeast	
	Midwest	
	South	
	West	

National Summary..... 88
Question 1
Question 2

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS..... 101
Summary..... 101
Introduction
Statement of the Problem
Procedures
Instrumentation
Validation of the Questionnaire
Data Collection
Data Analysis
Findings

Conclusions..... 109
Recommendations for Further Research..... 113

APPENDIX
Letter of Transmittal..... 114
Questionnaire..... 115

BIBLIOGRAPHY..... 116

VITA..... 123

LIST OF TABLES

Table | Page
1 Responses by Institutional Type and Geographical Region..... 47
2 Institution by School Size..... 49
3 Institutions by Highest Degree Offerings..... 50

LIST OF FIGURES

Figure		Page
1	National Dropout Rates	32
2	Variance in Time Spent Per Day in Job Placement Activities - Northeast	55
3	Assistance Rendered in Job Placement Activities by Institutional Type - Northeast	55
4	Variance in Time Spent Per Day in Job Placement Activities - Midwest	58
5	Assistance Rendered in Job Placement Activities by Institutional Type - Midwest	58
6	Variance in Time Spent Per Day in Job Placement Activities - South	62
7	T Test (Two Tailed) For Paired Samples - South	62
8	T Test (Two Tailed) For Paired Samples - South	62
9	Assistance Rendered in Job Placement Activities by Institutional Type - South	64
10	Variance in Time Spent Per Day in Job Placement Activities - West	64
11	Assistance Rendered in Job Placement Activities by Institutional Type - West	66
12	Variance in Graduates Seeking Employment - Northeast	66
13	Variance in Graduates Employed - Northeast	69
14	Variance in Graduates Employed in Their Career Area - Northeast	69
15	Variance in Interval Between Graduation and Employment - Northeast	71
16	T Test (Two Tailed) For Paired Samples - Northeast	71
17	T Test (Two Tailed) For Paired Samples - Northeast	71
18	Variance in Student Retention - Northeast	74
19	T Test (Two Tailed) For Paired Samples - Northeast	74
20	Variance in Graduates Seeking Employment - Midwest	75
21	T Test (Two Tailed) For Paired Samples - Midwest	75
22	T Test (Two Tailed) For Paired Samples - Midwest	75
23	Variance in Graduates Employed - Midwest	76
24	Variance in Graduates Employed in Their Career Area - Midwest	76
25	T Test (Two Tailed) For Paired Samples - Midwest	77

26	T Test (Two Tailed) For Paired Samples - Midwest...	77
27	Variance in Interval Between Graduation and Employment - Midwest.....	79
28	T Test (Two Tailed) For Paired Samples - Midwest...	79
29	T Test (Two Tailed) For Paired Samples - Midwest...	79
30	Variance in Student Retention - Midwest.....	80
31	T Test (Two Tailed) For Paired Samples - Midwest...	80
32	Variance in Graduates Seeking Employment - South...	80
33	Variance in Graduates Employed - South.....	82
34	Variance in Graduates Employed in Their Career Area - South.....	82
35	Variance in Interval Between Graduation and Employment - South.....	82
36	T Test (Two Tailed) For Paired Samples - South.....	83
37	Variance in Student Retention - South.....	83
38	Variance in Graduates Seeking Employment - West....	83
39	T Test (Two Tailed) For Paired Samples - West.....	85
40	T Test (Two Tailed) For Paired Samples - west.....	85
41	Variance in Graduates Employed - West.....	85
42	T Test (Two Tailed) For Paired Samples - West.....	86
43	Variance in Graduates Employed in Their Career Area - west.....	86
44	T Test (Two Tailed) For Paired Samples - west.....	86
45	Variance in Interval Between Graduation and Employment - west.....	87
46	Variance in Student Retention - West.....	87
47	Assistance Rendered in Job Placement Activities by Institutional Type - National Summary.....	91
48	Variance in Time Spent Per Day in Job Placement Activities - National Summary.....	93
49	Variance in Graduates Seeking Employment - National Summary.....	93
50	T Test (Two Tailed) For Paired Samples - National Summary.....	93
51	T Test (Two Tailed) For Paired Samples - National Summary.....	94
52	Variance in Graduates Employed - National Summary.....	94
53	T Test (Two Tailed) For Paired Samples - National Summary.....	94
54	T Test (Two Tailed) For Paired Samples - National Summary.....	96
55	Variance in Graduates Employed in Their Career Area - National Summary.....	96
56	T Test (Two Tailed) For Paired Samples - National Summary.....	96
57	T Test (Two Tailed) For Paired Samples - National Summary.....	97
58	Variance in Interval Between Graduation and Employment - National Summary.....	97
59	T Test (Two Tailed) For Paired Samples - National Summary.....	97
60	T Test (Two Tailed) For Paired Samples - National Summary.....	99

61 Variance in Student Retention - National Summary... 99
62 T Test (Two Tailed) For Paired Samples - National Summary..... 99
63 T Test (Two Tailed) For Paired Samples - National Summary..... 100

CHAPTER I

INTRODUCTION

Career education programs are established with the intention of serving students by preparing them for employment. Such programs serve the industrial marketplace by supplying it with trained workers. Marketplace needs are ascertained by first surveying the regional employers and then developing employment trends. Institutions, both public and private, must then weigh the educational training costs in light of the potential gain in student enrollments. Funding for educational programs in the public sector is often secured through a priority system set down by federal, state and local governments. As an example, the Federal Education Department's fiscal 1986 budget was $18.6 billion in support of nearly 13 million college students (HED, January 16, 1986). The fiscal funding for the 1986 school year designated $4,845.9 million for vocation education programs and another $101.9 million for adult education programs (HED, January 15, 1986). In 1982, the most recent year for which state figures are available, the average community college received $1,611 per full-time equivalent

student from the state government, compared to $566 per student from local government (NCES 1985). Figures for individual states may vary considerably, however. For example, in California, the state government contributed $1,757 per student, while local governments contributed $603. In Oregon, in the same year, 1982, the state government contributed $1,200 per student, while local governments contributed $1,464. These funds are used for direct financial aid to the students.

Private and proprietary institutions must rely on private or corporate funding to support the educational programs (HED, July 17, 1985). Proprietary institutions, must not only provide the financial support necessary for their operations, they also must, as business enterprises, pay taxes. They are, therefore, tax- generating institutions, as opposed to public sector institutions, which are tax-consuming.

Questions have been raised about the appropriateness of many of the job training programs offered in both public and private institutions and with regard to whether the prospective students of such programs are well served.

An article in the Chronicle of Higher Education, October 16, 1985, urged states to review education programs and justify expenses. Reference in the article by Jaschik led to the discovery by the Wyoming legislature that the state was financing a course called "Fun with Jell-O" (p18).

Critics of Career education voice further concern

over a perceived high dropout rate, without realizing that program completion is primarily an institutional, rather than a student, goal. Data from a recent study (Noel and Levitz, 1983) indicate that, at 761 two-year public institutions nationwide, only 40 percent of entering, full-time freshmen will complete an Associate Degree after three years. These data reflect mostly students of traditional college age. For the part-time and/or the returning adult learner, completion rates are substantially lower; for these students, it is not uncommon to find first- to second- year attrition rates of 60 percent or higher. For the student gaining employment or getting a promotion, however, course completion is irrelevant. The institution has been a means to an end. The categories "graduate" and "dropout" are rather meaningless when viewed in this light.

If one merely compares dropout rates and graduation rates, the true services rendered by those institutions may be unclear. The true value of a career education is much more complex then can be defined statistically. How valuable is occupational training given to a new student, who in the course of his study, hears about a job opening, obtains the job, and leaves school in the first term? In this case, the institution has acted as a short-term pipeline to the marketplace, with its curriculum serving as the conduit. At the other extreme are students who complete the entire program of study and develop the career skill, but either fail to find employment in their field or find

the new job totally unfulfilling. For them the institution has been a failure in the job preparation function. The critics of public and private career education cannot reconcile the fact that a dropout may be an employment success and a graduate an institutional failure.

Whether or not career education is useful to society, it has certainly captured the country's fancy. It has been estimated that nearly 55 percent of all entering freshmen in the 1984-85 school year are enrolled in career-oriented programs (AAJC 1984).

Historically, career-oriented courses of study have been offered in the public and private sector, in subjects ranging from mechanical skills, business operations, barbering, medical assistance, flight instruction, and, more recently, such technically-oriented subjects are electronics technology and data processing. The primary objective of such curricula is to impart to students the basic functional skills required in career-related specialties that will allow graduates to enter the world of work. Students who complete a program of study are awarded a certificate of completion, a diploma, or an Associate Degree.

Programs of study leading to the awarding of a certificate of completion are generally skill-intensive, job-oriented programs ranging from six weeks to one year in duration. Diploma courses are also skill-intensive and job-oriented but usually include a more in-depth concentration of skill-building activities, ranging in time

from 12 to 18 months. These programs often include a general education component, which provides academic training in English grammar and composition, mathematics, the humanities, and other selected courses.

Associate Degree programs of study typically range from 18 to 24 months in duration. The Associate Degree is generally the level of academic training most often allied with career-oriented training programs. In 1984, about 2.8 million undergraduate students, aged 14 to 34, were enrolled in two-year colleges, which is not significantly different from the number enrolled in 1983. Over 400,000 students were expected to earn the associate degree during the 1984-85 academic year (AAJC 1984). From 1974 to 1982, enrollment in two-year colleges had grown by 45 percent, accounting for 30 percent of total undergraduate enrollments (Condition of Education 1985). Two-year colleges also have been more likely than four-year colleges to serve older and part-time students. (Clohan 1986). Forty-three percent of those attending two-year colleges in 1984 attended part time (Fall 1984 Enrollment). The reasons for this degree's popularity which are most often cited are:

1. Relatively short academic training period.
2. Skill-intensive orientation.
3. Approximately one-half of the cost of obtaining a Baccalaureate Degree (Chronicle of Higher Education, 1985, p.18).
4. Availability of the numerous institutions offering

these degrees throughout the nation.

5. Ease of entry and exit from the institutions.
6. Perception by the employers in the marketplace of the para-professional nature of the Associate Degree.

The preponderance of past studies in career-oriented post-secondary institutions have been centered on the institution itself. This study, however, viewed career education as a business enterprise offering education as its service. The student was viewed as the product, and the marketplace was viewed as the ultimate consumer. The question of how well the business enterprises performed in the role described was evaluated in terms of the performance variables of graduate job placement and student retention.

Statement of the Problem

The problem this study examined was twofold:

1. To determine the state of the art of career education in this country. The inherent subproblems were to determine background information on the institutions surveyed, degree offerings and job placement services rendered.
2. To determine how these schools were fulfilling their role in preparing graduates to meet the employment opportunities of the marketplace. A subproblem was to determine how well these post-secondary institutions were retaining their students until graduation.

The Purpose

The purpose of this study was to answer the following question: How do post-secondary proprietary institutions compare with public and private post-secondary schools in the performance of the useful and beneficial role to society of providing job placement for career-oriented students?

Specific Objectives

The specific objectives of the study were to:

1. Determine if significant differences exist in regard to graduate job placement rates between post-secondary public, private, and proprietary educational institutions.

2. Determine if the type of institution is a predictor of student attrition.

3. Determine the extent to which the above institutions actively engage in job placement activities for their respective graduates.

Significance of the Study

A basic function of every economy is to provide jobs for the ready, willing and able workforce. The jobs should be desirable and pay enough to maintain a worker's standard of living. The jobs provide a focus for the holder's energies and ambitions. Jobs in the marketplace are directly linked to education. They define how much is needed of which skills and what institution can supply it. Jobs are also linked to technology (Landrum 1985).

Technology structures the way people function in society-- in its role in expanding the economy, in its capacity to replace workers with machines, and in the changes it brings in the education needed for specific jobs. Therefore, career-oriented education plays a major role in insuring that required skills are available in the sorting process that determines who gets which available job and in the technology necessary to provide job growth.

The American economy has been extraordinarily effective not only at creating jobs but at creating good jobs. In the past thirty-five years, from 1950 to 1985, the labor force increased from 59 million to 106 million. Both the number of jobs itself and those in professional jobs increased at a high rate. Two major categories, "Professional and Technical" and "Managerial and Administrative," rose from 17 percent of the total workforce in 1950 to 26 percent in 1980. Coupled with this significant employment growth, family income rose by 85 percent. These growth figures, however, cannot be expected to continue. Each year since 1979, a smaller number of young people turned 18 (NCES 1985).

Because of the lower birthrates of the 1960's and the 1970's, only 3.2 million men and women will turn 18 in 1992, 40 percent fewer than in the peak year of 1979 (HED, July 8, 1985). Fewer available workers will create difficulties in filling all the new and existing job opportunities. The next decade is likely to see, therefore, a continuation of

the trend of the last few years --falling numbers of new entrants to the labor market. If the rate of job formation continues at anything close to the lead of the 1970s, unemployment should continue to fall.

The rate of job formation is obviously critical. A major change has been the increasing share of all jobs in the service sector--government, education, communications, banking, and health care. As the economy matured (moved to a "postindustrial" or "knowledge" economy) the share of jobs in manufacturing has dropped.

Contrary to the widely held opinion, despite the drop in the share, the absolute numbers of jobs in manufacturing actually rose by 7,000,000. The United States is one of the few industrialized countries in which such an increase occurred. In the past ten years (1974-1984), the share of manufacturing jobs dropped from 25 percent to 20 percent of total jobs but rose in absolute numbers by 343,000. Contrast that statistic to the fall in manufacturing jobs in Japan (-70,000); France (-457,000); West Germany (-1,234,000); and Britain (-2,089,000) (Newman 1985).

The decline in the traditional college-age population has not had a significant impact on college enrollments, however. A new U. S. Census Bureau's report acknowledged that college enrollment growth is slowing, although it disagreed with a prediction by the Education Department's National Center for Education Statistics (NCES) that enrollment would decline in the next few years (HED, October

1, 1985). "So far, the decline in college enrollment projected by the Department of Education, based in part on a decline in the traditional college-age population, has not appeared" (p1). The Census did find that, in 1984, the latest year for which reliable statistics are available, there were 4.6 million students older than 25 who accounted for 36 percent of all college students, while in 1972, 28 percent of college students were over 25. NCES had based its prediction, published in its 1985 "Projections of Education Statistics," on a decline in the traditional college-age population of 18- to 24-year-olds. NCES also said that the decline would be offset by an increase in non-traditional students (HED, August 26, 1985).

The October 1983 edition of High Technology (cited in Zanardelli 1985) magazine, however, states that 2 million unemployed workers will never be able to return to their former jobs due to mergers which resulted in the closing of duplicate facilities and closings due to lack of demand (e.g., coal, autos, and steel). In addition more than 70 percent of U.S. manufactured goods now face import competition. The significance of this amount lies in the realization that less than 20 years ago it was only 25 percent. The expanding international considerations and the increasingly dynamic nature of the world economy affect more than just trade in a single sector. The American financial system telecommunications and a myriad of other aspects of today's life are so intertwined with the rest of the world

as to have changed permanently. American industry must now face intense foreign competition. Not only have Japan and Western Europe become more sophisticated in manufacturing and technology, but newly industrialized countries such as Taiwan, South Korea, Singapore, Hong Kong, and Israel are close behind. The result is a dynamic world market, a seemingly never ending economic race, in which the United States leads, followed by Japan, then Western Europe who in turn are pressed by the newly industrialized countries, who in turn are pressed by the emerging countries such as Brazil and Mexico (Newman 1985). By 1990 it is expected that the United States will have 10 million dislocated workers as a result of automation and changing technology. By the turn of the century, 86 percent of the U.S. workforce will be gathering, processing, and disseminating information tasks. And it is estimated that 80 percent of all jobs created during this decade will not require four years of college, but will require some special training beyond high school (Zanardelli 1985). Much of this career preparation would take place at the community college level and among proprietary training institutes offering programs highly responsive to the local and regional job market. Such institutions would also anticipate major changes in occupational patterns in order to accommodate the expansion of new careers and the decline of older ones. Presumably, they would build on an improved system of information feedback from current and prospective employers made

possible by advanced communication technologies (Levin 1984).

America's ability to compete both domestically and abroad begins with the quality of its educational programs. Post-secondary career-oriented education processes will be tested in the marketplace. This study attempted to determine how well prepared the public, private, and proprietary institutions are to meet this challenge.

Limitations

The study was made with the following limitations:

1. Only public, private, and proprietary institutions listed in the Handbook of Accredited Institutions 1982-1983, the Yearbook of Higher Education 1982-1983, and the 1983 Higher Education Directory were surveyed.
2. No attempt was made to determine what percent of the surveyed graduate population had pursued courses of study not generally considered career-oriented.
3. No attempt was made to differentiate between public two and four year colleges, community, vocational, or technical institutions.
4. Due to budgetary constraints the total college population of 3,331 institutions could not be surveyed.
5. The sample questionnaire was limited to ten items in order to simplify the respondents tasks.
6. The statistical analysis was limited to those programs available in the EPISTAT package in the language of BASIC.
7. No attempt was made to discover the reasons for student

withdrawal from post-secondary training programs.

8. The number of graduates not seeking employment voluntarily for any reason was not investigated nor addressed in this study.

9. The scope of the study was limited to two principle areas of study; graduate job placement and student attrition. Subjective qualities of education such as depth of inquiry, breadth of learning and quality of student life though important considerations were not investigated.

10. The number of personnel at each institution assigned to the job placement student services functions was not investigated.

Definition of Terms

Attrition: Dropping out of college for either academic or nonacademic reasons.

Career Education: Training that is closely matched to the job market demands of business and industry.

Private Post-secondary Institution: Schools not intended for, or controlled by the public. They derive their operating funds from tuition, grants, endowment funds, corporate, or religious sponsorship.

Proprietary Post-secondary Institution: An institution which operates on funds derived solely from student tuition. Historically, these schools were single ownership schools operated as a profit-making business. Now, however, many of

these schools are owned and operated by large corporations. Therefore, although the term proprietary school is still used in some of the literature, these schools are now more commonly referred to as private vocational schools (Loria, 1984).

Public Post-secondary Institution: A school maintained by public taxes and supervised by municipal, county, or state authorities.

Research Method

Subjects

The subjects in this study consisted of 300 colleges and universities selected from four geographical areas of the country: Northeast, Midwest, South, and West. Twenty-five post-secondary institutions, proprietary, public, and private, from each of these areas, were randomly selected. A summary list by geographical region of all post-secondary institutions listed in the Handbook of Accredited Institutions 1982-83, the Yearbook of Higher Education 1982-83 and the 1983 Higher Education Directory was made and the institutions numbered. A table of random numbers was then used to select the institutions by type of control; public, private, and proprietary. A letter of transmittal and a ten-item questionnaire were mailed to the job placement officer at the selected institutions in August, 1985. The purpose of the questionnaire was to determine how proprietary, public, and private

post-secondary institutions compared in terms of the research variables; graduate job placement activities and student retention. On October 15, 1985, a total of 160 usable questionnaires had been returned, and the statistical analysis was begun.

Geographical Areas

The four geographical areas have diverse social, political, industrial, and labor market conditions. New York State was selected for the study because it is represented in every economic catagory designated by the Federal Bureau of the Census. In Comparison with the rest of the United States, New York's economy has a disproportionately large share of the country's employment activity in the fields of wholesale-retail trade, finance, insurance, real estate, transportation, communications, public utilities services, manufacturing, construction and government. It is, however, under- represented in agriculture and mining.

Missouri, in the midwest, typifies the region. Lying near the center of the conterminous United States, it is the meeting place of the industrial east and the praries of the west, the cotton fields of the south, and cornfields of the north. Among its neighboring states, Missouri ranks second only to Illinois in the degree of urbanization and the amount of industrial and economic activity, though it maintains a vigorous and diversified agriculture.

The three southern states, Mississippi, Alabama, and

to a lesser extent, Florida rank low in many economic indexes. Personal income in all three states is below the national average. This can be explained in part by the great numbers of dependent persons under 15 years of age and by poor employment opportunities for an increasing surplus farm population.

California the most populous state in the United States has the most extensive public post-secondary education system in the country. It has nearly one million secondary and post-secondary students enrolled in career oriented vocational education. California's economy dominated by manufacturing, is the most productive economy of any state. As such, the California economy relies on a constant stream of skilled workers entering the workforce.

Instrumentation

In order to obtain data for this study, a ten-item questionnaire was constructed (viz., The Graduate Profile of Education and Employment) (Appendix). The ten-item questionnaire was validated by use of a test survey of 120 post- secondary institutions conducted in August 1984. Fifty-two usable documents were returned. An ANOVA "F" test was made on the returned questionnaire test items number 2,3,4,5,9,and 10. Due to a limited sample size of under ten institutions in some population groups the data summary was inconclusive. The analysis technique however proved satisfactory. Two questionnaire option items were subsequently changed in order to accommodate the varied

institutional responses that were hand written on the returned documents. A Spearman Rho Rank Order Correlation Coefficient test was developed for test item number 6. The results indicated that the rank ordering of the test items was a significant measure of an institution's graduate job placememt efforts.

An analysis by geographical area was not conducted again due to a small sample size--most notably in the southern geographical area. As a result, the post-secondary institutions listed in the state of Flordia were added to the southern area.

The survey instrument was designed to determine how well the post-secondary proprietary, public, and private education institutions prepared graduates to fulfill their job requirements in the business community and to determine how these institutions compared in retaining their students until graduation.

Variables

The research variables were measured by comparing graduate job placement and student retention statistics from proprietary, private, and public post-secondary institutions in four geographical areas of the country: the Northeast (New York), the Midwest (Missouri), the South (Mississippi/Alabama/Florida), and the West (California). An analysis of the returned data was conducted by geographical areas between the public, private and proprietary institutions on questionnaire items

2,3,4,5,6,8,9, and 10. The analysis by geographical region was followed by an analysis of the test items nationally. The regional data provided the micro perspective and therefore pinpointed any subsequent differences that were measured on the national summary.

Null Hypothesis

In order to provide the answer to the research questions; "What is the state of the art of career education in this country?", "How are these schools fulfilling their role in preparing graduates to meet the employment needs of the marketplace?" and "How well are these post-secondary institutions retaining their students until graduation?" the following null hypothesis was formed: there will be no significant difference between the three institutional types in terms of the performance variables.

Data Gathering

The job placement officers at the selected institutions were asked to complete the ten-item questionnaire on the basis of their most current data. The late summer quarter, 1985 period was considered the optimum time of the year in which to track the previous May/June graduating class.

Question number 1 of the instrument was designed to provide an analytical framework of the respondent institutions and to briefly describe the educational degree offerings. This framework was further developed by the

addition of full time student enrollment data gathered from the sample sources cited previously. It was expected that differences in institutional size and degree offerings would be realized between the three institutional types public, private, and proprietary. Questions number 5,6, and 8 were designed to investigate the depth and breadth of the job placement student services functions at the selected institutions. Questions number 2,3,4, and 10 were directed to the graduate job placement statistical summary only. These summary responses would then indicate the relative advantage a graduate may have experienced from attending a public, private, or proprietary institution in terms of employment opportunities. Question number 9 asked the respondents to indicate their student retention rates. Based upon previous studies by Wilms (1980) and Jung (1980) differences in student retention data were expected between the public, private, and proprietary institutions.

Data Analysis

An analysis of variance (ANOVA) "F" test was used to determine whether the cognitive variables differentiated between the post-secondary public, private, and proprietary institutions. On questionnaire items 2,3,4,5,9, and 10 where differences in the computed means led to the rejection of the null hypothesis, a two- tailed "T" test for the means of two independent samples was used to pinpoint differences between specific pairs of the sampled population. On questionnaire item number 6 a Spearman Rho Rank Order

Correlation Coefficient test for ranked data was used to test for significant differences among institutional types in regard to the assistance rendered by the job placement activities in seven selected options. The statistical data were analyzed by using the IBM-PC EPISTAT package in the language of BASIC.

Organization of the Study

Employment needs of the marketplace are satisfied principally by developing career oriented programs in local post- secondary institutions. The costs of developing these career oriented programs are borne by the local community, state and federal agencies for the public sector. Private and independent (proprietary) institutions fund their training programs through tuition, corporate sponsorship, endowments, or religious affiliations. Career oriented programs of study account for nearly 50 percent of all entering freshman in the 1984-85 school year.

The purpose of this study was twofold;

1. To determine how post-secondary proprietary institutions compare with public and private post-secondary institutions in providing career oriented education leading to employment in the marketplace.

2. To determine how well these post-secondary institutions are able to retain their students until graduation.

The institutions surveyed in this study consisted of 300 colleges and universities in four geographical areas of

the country: Northeast (New York), Midwest (Missouri), South (Mississippi, Alabama, Florida), West (California). Twenty-five institutions public, private, and proprietary from each of the four regions were randomly selected. A survey instrument was mailed to the job placement directors of the institutions in August 1985. On October 10, 1985, 160 usable questionnaires were returned and the analysis conducted.

In Chapter II of this study a review of the literature on career education and student retention was made. There appears to be a limited source of past reference materials dealing with career education however current sources are becoming more abundant. There is a preponderance of related material dealing specifically with student retention. Only those references that were directly related to the objectives of this study however were included.

The research methodology described in Chapter III outlines the statistical and theoretical framework of the study. Chapter IV is the presentation of the data and statistical summary of the research. The statistical means of the measured variables were compared through ANOVA "F" and "T" tests and correlation coefficient analysis.

Chapter V is the summation of the research study. Conclusions and inferences are drawn from the data in the previous chapter. Domestic and international implications are described and recommendations for further study are offered.

CHAPTER II

LITERATURE REVIEW

Career Education

A review of the literature in this field shows evidence of a considerable interest in comparing various forms of career education, some of which literature has had a significant effect on federal legislation. For example, studies done by Belitsky (1969), Erickson (1972), O'Neill (1970), and Wolman (1972) formed the basis for a number of federal programs. Most important, agreement was reached at the federal level, in 1972, that students in all post-secondary institutions accredited by an accrediting agency recognized by the Office of Education would become eligible for benefits under the Basic Education Opportunity Grant (BEOG), National Direct Student Loan (NDSL), College Work Study and other federal programs. In its 1973 study of vocational education, the National Commission on the Financing of Post-secondary Education found 7,016 occupational schools eligible for veterans' benefits or Social Security student aid programs, of which 5,019 were proprietary institutions. The National Commission's

definition of post-secondary education included only those occupational programs accredited by officially recognized accrediting agencies. Half of the proprietary schools thus identified were flight and cosmetology schools, although Erwin (1975) estimated that these schools enrolled less than half of the proprietary school student population. The effects of the 1972 Higher Education Amendments Act on the management of public, private, and vocational education institutions soon followed.

A subcommittee of the Committee on Government Operations: House of Representatives, Ninety-third Congress, conducted an inquiry into career-oriented vocational schools. The objective was to explore ways to limit the misuse of vocational training and to minimize the waste of government funds. In addition, efforts were begun to correct the abuses of misleading advertising, unethical recruiting, and the acceptance of unqualified students.

From these hearings, a staff paper entitled "Private Vocational Schools--Their Emerging Role in Postsecondary Education" (1973) followed. In summary, there was a consensus regarding the need for federal regulation leading to greater accountability on the part of the post-secondary schools to ensure superior quality of education.

Public and proprietary vocational training was also addressed in the first of three research studies by Wellford W. Wilms, Professor, University of California, Los Angeles. In the research sponsored by the National Institute of

Education (DHEW), Washington, D.C., Wilms (1975) studied the effectiveness of twenty-one public and twenty-nine proprietary schools in four large metropolitan areas by following 2,270 graduates from six career-oriented occupational programs into the labor market and evaluating their success.

Unique findings emerged from an evaluation of this research. On the average, costs for proprietary school instruction were 35 percent lower than those for public institutions. The reasons were three. Proprietary institutions concentrated on specific short-term, but highly intensive, job-related training; they tended to work teachers longer hours for less pay; and they actively recruited and held until graduation, the less-advantaged student. Specific findings included:

1. Only two of ten graduates of either kind of school who chose professional or technical-level training ever got those jobs.
2. Almost eight of ten graduates of either kind of school who chose lower-level clerical or service training programs got those jobs, but most earned less than the federal minimum wage.
3. Public and proprietary school graduates had about the same occupational success, after controlling for differences in their backgrounds.
4. Female graduates always earned less than male graduates, and ethnic minorities generally earned

less than whites in the same jobs.

5. Apparently because they paid twenty times more for their courses, proprietary school graduates were generally less satisfied than their public school counterparts.

One year later Jung, et al (1976) concluded that substantial differences favoring nonproprietary programs were found between proprietary and nonproprietary graduates in terms of economic gains and job satisfaction following graduation. Both types of programs, however, were successful in meeting market labor demands. Wilms (1976) published his second report, "Protecting the Vocational Education Consumer". The objective of Wilms' research was to test differences between vocational training offered by public and proprietary schools. This study was based on a sample of 4,800 students and graduates in accounting, data processing, electronic technical training, dental assisting, secretarial science, and cosmetology occupations. Even though vocational students are generally the least advantaged students in post-secondary education, the study determined that proprietary schools offer flexible programs, and that they are, therefore, frequently more attractive than comparable programs in the public schools. The study concluded that students from either type of program were likely to have their employment aspirations frustrated unless they chose work at lower levels of the occupational hierarchy. The conclusion, therefore, followed that many

post-secondary schools are not living up to their explicit or implicit promises of upward mobility.

Talley (1977) assessed data from previously published reports on post-secondary education. Five criteria were discussed:

1. Post-secondary education should improve the graduates' work opportunity.
2. Post-secondary education should have effective holding power.
3. Post-secondary education should be relevant to students' needs.
4. Post-secondary education should be cost-effective for students and the society financing it.
5. Post-secondary educational institutions should be accountable.

Talley concluded that:

1. While only 20 percent of the jobs predicted to be available in the near future will require a college degree, 76 percent of the high school students were found to be college bound.
2. Available data indicated that the dropout rate from proprietary institutions was substantially lower than that of public vocational schools, two-year colleges, and four-year colleges. The profit motive in proprietary institutions stimulates continuous change in the program offerings and instructional methods to reflect changing student

needs and labor market conditions.

3. An education in a proprietary institution tends to cost the student less than an education in a public institution because of the intensive, short-term nature of its programs.
4. Education should be judged on the basis of the quality of the instruction and not on the capital structure of the institution.
5. As accountability statistics are revealed from each sector, the alternative proprietary schools are achieving deserved recognition.

The product (student) protection issue was addressed by Bullock (1977) in a conference paper presented to the Keystone Staff Development Workshop for State Licensing/Approval Officials. Bullock, as Assistant Attorney General of the State of Kentucky, offered suggestions for the enforcement of state statutes governing the licensing of proprietary schools. He proposed legislation for the prosecution of individuals who deceive the students regarding, for example, claims of high salaries earned by graduates and easy job placement.

Freedman and Berg (1978) urged young students to pursue traditional undergraduate education as a means of gaining entry into the workforce.

Talley (1982) concluded that independent (proprietary) schools were doing, and should continue to do, a better job with short-term vocational education than the

traditional institutions. "Independent schools are no longer stand-in players but have a distinctive role which cannot be as competently assumed by others" (p. 16).

High rates of job placement success are attributed in part to the job placement coordinating activity. Talley (1982) observed that placement services are among the special offerings of independent institutions. The "placement spirit" is perhaps equally important. This study indicates that the private and public institutions are becoming actively involved in job placement roles. This perspective is shared by Stanley C. Stewart, Director of Vocational Education, Marshall County Schools, Moundsville, W. Va., in his prepared statement to the Committee on Education and Labor, House of Representatives, Ninety-Eighth Congress.

> The schools would provide the necessary connection between education and training and the workplace. In addition, a widely expanded career assessment counseling and placement program must be developed. With the drastic changes that are taking place in our job market, our young people need direction and many of our adults need redirection. The importance of placing an individual in the proper training program that will lead to employment cannot be overemphized (p. 53).

Unlike the American smorgasboard of public, private, and proprietary institutions and the independent state systems, post-secondary education in Europe, Asia, and Australia is almost entirely provided by government, which determines the number, type, and location of institutions, the number of places for students in total by discipline and

most all aspects of higher education that influence its quantity and quality. Of singular importance was that tuition should be free or very low and that government should cover a large part of students living costs and expenses through grants and loans.

In Western European countries which face a youth population bulge in the early 1980's education planners are committed to a large expansion of higher education along with every other type of skill and career training simply as a means of absorbing the young people. The guiding premise is that more training and education are better than less (Reubens 1977).

Attrition/Retention

The gradual decline of college bound students in the mid-seventies gave rise to increased interest in student retention. Thus developed an emphasis on studies to define ways of keeping institutional student populations from declining. Lenning (1978) discussed three ways for an institution to maintain enrollments:

1. Obtain a larger proportion of the decreasing pool of traditional prospective students.
2. Enroll more students from the non-traditional sector.
3. Increase student retention.

Options one and two are marketing/promotion driven options which involve external strategy elements. Student retention, however, is an internal problem and the one

option most easily addressed by most institutions.

Terenzini (1978) considered the internal problem in his study of attrition at individual institutions. He concluded that a fundamental problem in studying and measuring retention/attrition was the interpretation of terms. There was then, and still is, a lack of agreement on definition of terms and, acceptance of measurment instruments.

Terenzini further acknowledged that the collecting of retention and attrition information should involve other than questionnaire surveys. Personal contact and telephone interviews are often economically feasible and can be very effective ways of collecting data. For example, Kegan (1978), in his study of dropouts at Hampshire College, pointed out that his study, which subsequently had a major impact on the college, accrued telephone charges of less than $350.00. The study helped administrators correct campus misperceptions about the college's attrition rate. As a result of his findings, a formal retention program was instituted. Differences in attrition rates do, however, vary across institutions that are similar in almost every other respect. Jex and Merrill (1967) reported that only 20 percent of the entering students at the University of Utah graduated within four years, although 60 percent graduated within ten years of entering (matriculation). Middleton (1978) found that, through special retention programs structured to assist the borderline dropout, Drake

University, Redd College, Central Washington University, and the University of Maryland were each able to increase their graduation rates from seven to 16 percent.

Sheffield and Meskill (1974) emphasized that schools should formulate institutional goals and objectives and incorporate them in programs clearly identified to students. Sheffield also recommended that faculty, peers, and administrators "listen for those who don't talk, who sit in the back row, who take few notes, who resist advising, who show signs of hostility, withdrawal, and anxiety, especially during the first eight weeks" (p. 42). Michlein (1977) encouraged stressing the importance of student retention to faculty and staff through in-service training and workshops.

Vest and Spino (1975) addressed the student attrition problem in terms of lost revenue. They emphasized the need for effective student advising in three areas: academic administration, student affairs, and financial aid administration. They concluded that the keys to a successful student counseling program are communication, cooperation, consolation, and coordination.

A study conducted by Jung (1980) for the National Center for Educational Statistics in 1978 indicated that close to 70 percent of independent school students either completed their programs of study or left before completion in order to accept a position in the desired field. Only 55 percent of the public vocational school students completed their programs. This finding suggests that approximately 30

percent of independent school students drop out of programs before they are "employable," as compared to about 45 percent of public vocational school students.

Each year all accredited U. S. colleges and universities are asked to complete the American College Test (ACT) institutional data questionnaires which provides national demographic information on college enrollments and student characteristics. As part of the annual update, colleges and universities provide self-reported retention and graduation rates. The following was reported by the National Dropout Study (Noel and Levitz 1983) and displays freshman-to-sophomors year (not sophomore classification) drop-out rates by degree level and control for 2,432 institutions in 1982.

FIGURE 1

NATIONAL DROPOUT RATES

	Freshman to Sophomore Year	
Degree Level/Control	N	%
Two-Year Public	767	46
Two-Year Private	165	30
BA/BS Public	77	30
BA/BS Private	592	26
MA/1st Prof'l Public	207	31
MA/1st Prof'l Private	359	22
Ph.D. Public	144	26
Ph.D. Private	121	15
	2432	

In an earlier study for the Inner City Fund, Inc., Erickson (1972) found a completion rate among proprietary schools that approached 90 percent. Factors cited as generating such high retention included individual attention to students, faculty accountability, performance feedback from students, and motivational strategies to assist slow learners and retrieve drop-outs.

Wilms (1980) asked the question, "Are proprietary schools able to hold their students to graduation better than public schools?" Data from this study, which followed 1,567 vocational students for two-and-one-third years from their first weeks of class, determined that 69 percent of the proprietary students had graduated, compared with 46 percent of the public post-secondary institutions' students. In another light, the chances of proprietary school students graduating within two-and- one-third years were one-and-one-half times greater than for their public school counterparts.

Wilms also found that dropouts and students who lingered on in school, despite their inability to complete even a vocational program, had unrealistically high educational expectations since many expected to achieve at least a bachelor's degree. Contrary to popular belief, Wilms also discovered that public school students did not take an abnormally long time to complete their programs. At the end of his study, only 14 percent were still in school,

the other 86 percent having either graduated or dropped out with no intention of returning. Conventional wisdom has it that high drop-out rates from post-secondary vocational programs are largely due to students leaving early for good jobs or transferring to four-year colleges. Findings from this study dispelled both points. Only 11 percent of the public school dropouts and 8 percent of the proprietary ones said they left early mainly for a good job. Furthermore, he found that 10 percent of the public school graduates and 13 percent of those from proprietary schools had enrolled in four-year colleges.

Theories of Attrition

The vast majority of attrition studies are empirically oriented; however, there have been valuable efforts to conceptualize and model the attrition process. Spady (1970,1971) and Tinto (1975) used Durkheim's theory of suicide for insights into the attrition - retention question. Durkhein concluded that the potential for suicide is greatest when people are not integrated into the fabric of society, specifically in terms of morals (values) and affiliations (interpersonal relationships and roots).

Spady (1970) presented this analogy between Durkheim's view of suicide and student attrition:

> Although dropping out is clearly a less drastic form of rejecting social life than is suicide, we assume that the social conditions that affect the former parallel those that produce the latter: a lack of consistent, intimate interaction with others, holding values and orientations that are dissimilar from those of the general social

> collectivity, and lacking a sense of compatibility with the immediate social system. However, since the student's academic role has many parallels with his future occupational role, it would not be inappropriate to extend this analogy a step further. Poor performance in one's occupational role (viz., low grades) and inadequate identification with the norms of the occupational group (viz., low intellectual development) are also plausible additions to this system.(p.78)

Spady took issue with Durkheim's model because it discounted such relevant factors as students' family backgrounds. He believed that the family background was the primary determinant in his model of attrition.

Spady's model defines the interactions between student characteristics (their abilities, attitudes, expectations, dispositions, habits, interests) and the expectations and demands of fellow students, faculty, administrators, and the curriculum. Spady believes that voluntary or involuntary withdrawal may result if the discrepancies between the student's characteristics and the environment are too great, with the result that the student may not be assimilated and accepted into the social and academic framework of the institution. Secondly, personal achievement rewards, such as grades and academic growth, may be insufficient to provide the satisfaction that the student needs. In a follow-up study one year later (Spady 1971) developed an expanded rational and empirical basis for his model. Spady viewed men and women separately and discovered that the complexity of the interrelationships were far more difficult to define than previously perceived.

Tinto (1975) agreed in principle with Spady as he

postulated that attrition is most likely to occur when the student is no longer socially integrated with other members of the college community and when the student no longer holds the dominant values that are reflected in the institution's functioning. Tinto's premise is that attrition results from a social and cultural interaction between the potential dropout and other persons, both inside and outside of the college community.

Tinto's interaction model is a longitudinal process in which ongoing interactions take place between the student and the academic and social systems within the college. Both the frequency and quality of those interactions are crucial to modifying the students' college completion goals and commitments to the institution. External factors, such as changes in the economic condition or family pressures, may alter the student's assessment of his goals and college commitments. If the forces of commitment and academic success outweigh the opposing forces, retention will occur; if not, the student becomes a dropout. Rootman (1972) reached similar conclusions when he cited person-role fit and interpersonal fit as the major determinants in the variance in withdrawal at the United States Coast Guard Academy. Tinto's interaction support theory received further support from Husband's (1976) research at Spring Arbor College. Data from Savicki's (1970) University of Massachusettes study also indicates that persisters exhibit more interest and enthusiasm in social development than

dropouts. Interestingly, Hanson and Taylor (1970) report findings that persisters tend to be undersocialized. Their study was of a technical school environment where the emphasis was on course work and little social integration was possible. Starr, Betz, and Menne (1972) formulated their own theory of student-environment fit. In their model, students attempt to achieve a congruence of the academic and social pressures of the institution. Success arises from persistence, and, when a congruence is not achieved, attrition results.

Another theoretical view of attrition and retention is the descrepancy or congruence theory developed by Flannery (1973). According to the report of attrition at Miami-Dade Community College, attrition was a result of a combination of factors that contributed to whether or not student expectations could be realized. The authors divided these factors into categories of "society", "student", and "college", and interfaced them in overlapping circles. Flannery proposed three ways for an institution to aid the students in reaching their goals. One such strategy was to set acceptable institutional attrition goals and encourage faculty and staff to seek ways to attain them. The intent was to address attrition from an institutional perspective and seek active involvement at all levels in directing students in the achievement of their educational goals.

Pertinent studies have also examined the typical withdrawal sequence. Leon (1975) conducted in-depth

interviews of 15 Chicano students who dropped out between 1969 and 1971. Those interviewed had been enrolled in the Education Opportunity Program at the University of California, Santa Barbara. In analyzing the reasons given for dropping out, Leon identified four stages in the development of the dropout rationale:

1. Original rationale for entering college.
2. Deterioration of this rationale.
3. Transition from original to leaving rationale.
4. Adoption of leaving rationale.

From this small sample, however, a generalization can be made that the college can prevent dropouts if intervention takes place prior to stage 4 or earlier if possible.

Festinger's cognitive dissonance (1962) is another general formulation of the student-environment interaction. This theory addresses individuals' position and situation within the environment (problems with academic course work and personal problems). Dissonance or "non-fitting relations" among these cognitive or perceived elements generates pressures to reduce the dissonance through behavior modification, perception modification, or seeking out new information that will improve the fit of various elements. Furthermore, the magnitude of the dissonance and the pressures to reduce it are greater when the elements are more highly valued, which suggests that students with strong needs, unmet by the college, are prime candidates for dropout. Talley (1977), in his study of public and private

post-secondary collegiate institutions, concurred; "The holding power of an institution is an important aspect of its effectiveness" (p.6).

Cope and Hannah (1975) stated that the lack of fit can pertain to a number of factors, but generally the research tells us that it is the fit between student and college that accounts for most of the transferring, stopping out and dropping out. A student from a rural background attending a large, impersonal university may fear the setting and consider the people attending it a threat. The reaction to this situation may preclude successful adaptation to any form of higher education. The same student, if attending a small, friendly, rural college, may still find the institution's characteristics unsatisfactory. "It is the fit that counts" (p.3).

Cope and Hannah (1975) elaborated on discrepancies of this type under broad, general groups, such as poor choice, bureaucracy, teaching quality, identity seeking, value confrontations, and circumstances. In their work they cited collaborative studies by Pervin and Rubin (1967) on "self and college", "self and other students", and "actual college and ideal college"; Keniston and Helmreich's (1965) examination of how college promotes or thwarts identity development; and Nasatir's (1969) comparison of student academic versus non-academic orientation.

Attrition rates for resident versus commuting students have been explored in a number of studies, with

mixed outcomes. Slocum (1956) reported that on-campus residency had a positive effect upon persistence. Drasgow (1958) concurred, as did Astin (1973), who reported that dormitory living aided retention during a student's freshman year. Chickering (1974) concluded that resident students have access to, find, and are forced into diverse situations. Astin (1975) reached the conclusion that resident living was the single most important factor in reducing attrition.

Research by Brothers and Hatch (1971), however, concluded that it is not possible to draw any firm conclusion in regard to residential living, attrition, and academic performance. Hubbard (1974) supported this conclusion. Garni (1979) found little information to support the premise that commuters were more likely to drop out than were resident students. Foster et al (1978) found no relationship between residential experience and attrition.

Schneider (1984) addressed the dormitory environment factor in his research of predictors of attrition at Johnson and Wales College. He discovered that a student's residential experience during the second trimester indicated that dormitory students were more likely to drop out for academic reasons and commuters were more likely to drop out voluntarily. The overall finding was that dormitory students had a higher attrition rate than commuters. Furthermore, Schneider discovered that math and verbal

scores on the School and College Ability Test (SCAT) were the main contributing variables in discriminating between persisters (those staying in school), voluntary or academic dropouts.

Hamilton, in a Journal of Career Development article, "Job Preparation as Base" (1985), emphasized the fact that the independent (proprietary) schools pin their ultimate success on how well they meet the needs of their students and the employers in their geographical areas. Therefore, they have to know where the jobs are, which occupations are growing and how much, and when to train for those occupations. They must also know how to market their students. Foresight, planning, and an excellent product is the key to success for independent schools.

> Skill education has become increasingly recognized as filling an important social and economical role in our society. Why? One reason is that 80% of the jobs in the 80's will not require a college degree because of the changes in the job process. All occupations have seen an upsurge in electronics, computerization, and office automation. Information processing has revolutionized the job market and accompanying workforce. (p 166).

The success or ultimate failure of a proprietary school was said by Eisenhour (1985) to rest on three major functions of an institution: job placement, developing business and industry advisory committees, and graduate tracking. Some schools utilize alumni groups that provide feedback. Many schools have a formal system of getting graduates to return to the classroom to relate their work experiences. Some institutions utilize questionnaires, which are sent to

working graduates and employers to inquire about how well the graduates are satisfied, what the working graduates think about the curriculum, and what the employers feel are strengths and shortcomings of the institution programs. Therefore, the alert, progressive independent school brings in the opionions of business and industry, as well as the valuable feedback from the product--the students.

Summary

In this chapter a review of the related literature was made. Two general areas were examined, career education as an entry vehicle into the marketplace and student retention/attrition. The related literature indicates that proprietary post-secondary schools are a growing force in our national education process. If all of the proprietary schools in the United States were to close their doors, the loss to our economy would be incalculable and the loss would be immediately and dramatically felt. For many years, the proprietary school was the only educational agency preparing young people for business careers. It has survived, despite the spreading influence of community colleges and public and private collegiate-level, career- oriented programs.

Feller and Kreutzer (1985), in their article, "Student Advocacy Demands Promotion of Private Vocational Schools as Part of a Total Delivery System" summarized the current state of career education:

> Vocational education, like many of its students, is in transition. Public and private vocational schools have much to learn from each other.

> Students face greater advantages if they are advised to capitalize on the assets of both within a total multiple option educational system. Both systems respecting, supporting, and promoting each other's assets augments the students' freedom to choose from a greater range of options. Advisors and student advocates with accurate information and greater understanding of the differing missions of private and public vocational schools will find it easy to promote vocational education in general, and private schools specifically, in ways which enhance the student's ability to map their own course and design their own career unfoldments (p. 215).

In regard to student retention, many of the above cited studies, conclusions, and recommendations stem from conditions on particular college sites. The remedies often have a distinctly regional flavor. However, some universal themes prevail, and the suggestions are applicable to all institutions, such as those offered by Flannery, (1973), who suggested that, in order to succeed in student retention, the total institution must be involved.

CHAPTER III

RESEARCH METHODOLOGY

This study was designed to determine whether institutional variables are related to student groups attending post-secondary independent (proprietary), public, and private institutions and to determine whether these institutions fulfilled their role in preparing graduates for the world of work. An attempt was made to determine how efficiently the three institution types performed in student services functions, graduate job placement, and student retention.

The Sample

In late summer, 1985, the ten-item Graduate Profile of Education and Employment letter and questionnaire (Appendix) was mailed to 300 job placement offices in four geographical areas of the country: Northeast, Midwest, South, and West. The sample population was selected from the 1982-1983 Handbook of Accredited Institutions the 1982-1983 Yearbook of Higher Education and the 1983 Higher Education Directory . The institutions were numbered and

twenty-five of each from the independent (proprietary), public, and private post-secondary institutions in the four geographical regions were then selected, using a table of random numbers.

The questionnaires were mailed to the student services/job placement director, which is the office primarily responsible for graduate job placement programs at most institutions. The directors would, therefore, have the necessary, historical information that was requested in the questionnaire. The timing of the mailings was considered optimal because it would allow the study to account for the past May-June graduate placement cycle. Further, most student services administrators were available at this time and were unencumbered by large in-house student populations.

Validation of the Questionnaire

A trial sample of the procedure and the instrument was conducted in August, 1984. One-hundred-and-twenty questionnaires were mailed to selected job placement offices at proprietary, public, and private post-secondary institutions in the four geographical areas of the country: Northeast, Midwest, South, and West. Of the 120 questionnaires mailed, fifty-two usable documents were returned. Three surveys were returned with little or no information documented because of insufficient institutional recordkeeping, and two were returned as undeliverable since the institutions either had moved or were no longer in operation. As a direct result of the respondents' replies,

two questions on the instrument were changed.

Question number 1 (refer to Appendix) was expanded to include option "D"--"other: Specify"--for those institutions offering graduate level degrees.

Question number 10 (refer to Appendix) was changed from "On the average, what is the length of time it took your graduates to find a full-time job" to "On the average, what is the length of time it took your graduates to find a full-time job commensurate with their training?"

Data Collection

The 300 schools in the sample were located in six states representing four regions. New York represented the Northeast; Missouri, the Midwest; Mississippi, Alabama, and Florida, the South; and California, the West. Six weeks after their mailing, 147 usable questionnaires were returned. Ultimately, the total number of usable returns represented 160 schools, or 53 percent. Seven questionnaires were returned with little usable information, and two were undeliverable. Three surveys were returned with notes indicating that they would not respond, either because the information requested was too confidential or because it was not applicable to their institution's situation. Therefore, the total number of responses was 172, or 57 percent.

As Table 1 indicates, the usable return rates by institutional types are within 10 percent, and the response rates by region are within 6 percent.

TABLE 1

Responses by Institutional Type
and Geographical Regions

	East	Midwest	South	West	Totals
Proprietary	13	13	18	17	61 (38%)
Public	12	15	13	12	52 (33%)
Private	15	9	15	8	47 (29%)
Totals	40 (25%)	37 (23%)	46 (29%)	37 (23%)	160 (100%)

Institutional size, Table 2, was another indicator of the uniformity of the sample. A nearly equal usable return rate was received by those institutions classified as small (1-299 full-time students) and those defined as large (with over 3,000 full-time students). A disproportionately large number in the small college category (21) were, as expected, proprietary. Further, only one proprietary institution in the returned sample had a reported full-time student population over 3,000 students, whereas public institutions comprised 67 percent.

The category of degree offerings by institutional type and region has a direct effect upon graduate employment availability. Institutions offering bachelor or graduate-level degrees will postpone graduate employment for a segment of their student population seeking a higher degree. Table 3 further suggests that proprietary institutions in nearly 50 percent of the cases offer only short-term certificate/diploma courses. The short-term nature of the course offerings accounts for the large number of proprietary institutions of less than 300 students. With a high turnover of students, the in-house population will generally be low.

Problems in the selection process were expected. Some institutions surveyed would be closed for the summer; some would no longer exist; others, it was expected, would not respond, due to insufficient data, poor recordkeeping, and the lack of an administrator, and others simply would not respond to questionnaires.

TABLE 2

INSTITUTION BY SCHOOL SIZE

	Full Time Student Population		
Proprietary	Small	Medium	Large
Northeast	4	8	1
Midwest	7	6	0
South	8	10	0
West	2	15	0
Public			
Northeast	0	5	7
Midwest	1	8	6
South	3	6	3
West		6	6
Private			
Northeast	1	11	3
Midwest	1	7	1
South		10	5
West	2	5	1
	29 (19%)	97 (61%)	34 (21%)

Small 1-299

Medium 300-3000

Large Over 3000

Total Number sampled - 300
(25 per segment)
Total returned - 160

TABLE 3

INSTITUTIONS BY HIGHEST DEGREE OFFERINGS

	Certificate/ Diploma	Associates	Bachelors	Graduate
Proprietary				
Northeast	6	6		1
Midwest	8	4	1	
South	9	5	4	
West	9	7	1	
Public				
Northeast		4	1	7
Midwest		7	3	5
South		7	3	3
West		9	1	2
Private				
Northeast		1	7	7
Midwest		2	5	2
South		1	9	5
West		2		6
TOTALS	32	55	35	38

CHAPTER IV

PRESENTATION OF DATA

The questions this study examined were twofold:

1. To determine what is the state of the art of career education in this country. The inherent subproblems were to determine background information on the institutions surveyed, their degree offerings, and the job placement services they rendered.
2. To determine how these schools were fulfilling their role in preparing graduates to meet the needs of the marketplace. The inherent subproblems were to determine how well these post-secondary institutions were retaining their students until graduation.

This chapter summarizes the findings of the research study based on the data collected from The Graduate Profile of Education and Employment (Appendix). The two research questions were addressed and the data analyzed by geographical region followed by a summary analysis of the data nationally.

Question 1

What is the state of the art of career education in this country

Northeast

Of the 160 institutions responding to the survey, forty were from the Northeast geographical region represented by New York State. The post-secondary institutions were nearly equally divided between the private (15), proprietary (13), and public (12) (Table 1).

An analysis of institutional type by student population indicated that the public institutions surveyed were medium (300-3,000) to large (over 3,000 students), while the private institutions were mostly medium in size. Table 2 indicated that four of the five small institutions were proprietary. They are historically small and generally located within a metropolitan area. Their programs of study are short-term, with residence requirments between six months and eighteen months. Proprietary institutions must rely on effective marketing strategies in order to maintain in-house school populations of 300 to 400 students. Both public and private institutions rely on longer course program residency requirments. Therfore, the average in-school populations will be larger than the proprietary schools.

Table 3 indicates that, in twelve of the thirteen proprietary institutions, the certificate/diploma and

associate degree programs were the highest degree offerings. Four of the twelve public institutions surveyed in this geographical area were junior/community colleges offering only associate degrees while seven offered degrees through the masters and Ph.D. level. The private institutions were equally divided between institutions offering baccalaureate and graduate level degrees, with one institution offering only an associate degree. In summary, seventeen of forty institutions (42.5 per cent) are primarily vocational and career oriented.

Job Placement/Student Services activities' staffing functions indicate the relative importance that post-secondary institutions put on assisting graduates in obtaining employment commensurate with their education. Survey question number five addresses this function. It asks the respondent to indicate "How much of your average workday do you spend in job development?" Figure 2 indicates that the respondent at the proprietary institutions spend, on the average, 3.96 hours per workday on this activity, compared to 2.16 hours spent by job development officers at private institutions and 1.70 hours at public post-secondary institutions. The data does not indicate, however, the amount of time spent in these job placement functions by all staff members if more than one is assigned.

The difference in time spent per workday by the three institutional types of schools in job development activities

was not significant when measured by the analysis of variance "F" test at the .01 level of significance.

When asked how helpful were each of the listed activities in placing students (in employment) and locating job opportunities (for them) (Figure 3), all three institutional types agreed that a direct application to the potential employer was the most important factor in the graduates' future employment. College -sponsored interviews were next in relative importance.

Proprietary and private institutions agreed on the rank order of the faculty and classified advertisements. Computation of the Spearman Rho coefficient of rank correlation from converted date indicated that the correlation coefficient between the proprietary and private institutions (rr = .8928) was significant at the .01 level. The correlation between the proprietary and public institutions and between the private and public institutions was not significant.

Question number eight of the questionnaire asked the respondents to indicate the extent to which job placement assistance was rendered. All of the public and private institutions offered each of the services listed (Appendix). The services listed were: Counseling , Resume Review, Forwarding Credentials, On Campus Interviews, Job Search File/Bulletin Board. In addition, two public institutions offered "Career and Job Fairs" and computerized matching. These were special features to assist in bringing the

Figure 2

VARIANCE IN TIME SPENT PER DAY IN JOB PLACEMENT ACTIVITIES - NORTHEAST

Questionnaire Item #5

Names:	Proprietary	Private	Public
Means :	3.96	2.16	1.70

F=4.301487 DF=2 DF=38

The means of these samples are not significantly different at the .01 level.

Figure 3

ASSISTANCE RENDERED IN JOB PLACEMENT ACTIVITIES BY INSTITUTIONAL TYPE - NORTHEAST

	Rank Order		
	A	B	C
	*Proprietary	*Private	Public
College Administrators	6	5	4
Faculty	3	3	6
State Employment Agencies	7	6	5
Private Employment Agencies	5	7	7
Classified Advertising	4	4	3
College Sponsored Interviews	2	2	2
Direct Application	1	1	1

*Significant at the .01 level

Correlation Coefficient

*A & B = .8928	T=4.4319
A & C = .6071	T=1.1604
B & C = .7857	T=1.3814

graduates and employers together. An "Alumni Networking" job development and graduate placement program is now in operation at a Northeastern private four-year institution. This is a new and innovative approach in student services. The services rendered in the proprietary institutions were generally less broad in scope. Counseling and job search files were listed by all fourteen proprietary school respondents. On campus interviews, however, was the service least rendered. Only seven institutions utilized this job placement service.

Midwest

Thirty-seven of seventy-five polled institutions from this geographical area responded. Fifteen were public, thirteen were proprietary, and nine were private post-secondary institutions (Table 1). Twenty-one of the surveyed institutions were classified as medium size by student count (300-3,000), and they were nearly equally divided between the three institutional types of schools. Of nine small (1-299 students) institutions responding, seven were, as expected, proprietary. The public sector supplied seven of eight of the large institutions (over 3,000 students) (Table 2). An analysis of institutions by highest degree offerings indicated that eight of the thirteen proprietary institutions offered only certificate/diploma level training, four offered associate degrees, and one institution offered a bachelors degree. Of the nine private institutions responding, five offered

bachelors (two at the graduate level), and two private institutions offered only an associate degree. Of the public institutions, seven were community or junior colleges, three were four-year institutions, and five offered credentials at the graduate level. Twenty-one (57 percent) of the surveyed institutions in this region were primarily vocational and career oriented (Table 3).

An analysis of the time spent in job development (Figure 4) indicated that the sample means of the institutional types were not significantly different. The respondents from proprietary institutions spent an average of three hours and eleven minutes per day, the public two hours and twenty-five minutes, and the private two hours and ten minutes per day on graduate job-seeking and placement activities.

Figure 5 indicates the rank order of seven options of personnel and agencies helpful in placing graduates in employment. There was a significant correlation of rank order between the proprietary and public and between the private and public institutions. The rank order indicated the relative importance each agency had in assisting the job placement directors in the overall graduate job placement process. Unlike the Northeast region, the faculty at public institutions played an important role in the process. There was also less reliance on the use of newsprint classified advertising in this region as a source of employment leads. State and private employment agencies appeared to have

Figure 4

VARIANCE IN TIME SPENT PER DAY IN JOB PLACEMENT ACTIVITIES - MIDWEST

Questionnaire Item #5

Names:	Proprietary	Private	Public
Means (Hours):	3.19	2.16	2.43

F=.6710602 DF1=2 DF2=34

The Means of these samples are not signigicantly different at the .01 level.

Figure 5

ASSISTANCE RENDERED IN JOB PLACEMENT ACTIVITIES BY INSTITUTIONAL TYPE - MIDWEST

	Rank Order		
	A	B	C
	Proprietary	Private	Public
College Administrators	3	4	4
Faculty	4	2	3
State Employment Agencies	7	6	6
Private Employment Agencies	6	7	7
Classified Advertising	5	5	5
College Sponsored Employment Interview	1	3	2
Direct Application	2	1	1

*Significant at the .01 level

Correlation Coefficient

A & B = .7857 T=2.8403

*A & C = .8928 T=4.4319

*B & C = .9642 T-8.1298

little positive impact on graduate employment.

Question number eight of the questionnaire asked the respondents to indicate the special job placement services offered by their institutions. All three institutional types utilized counseling, resume reviews, on-campus interviews, and job searches. As in the Northeast region, the proprietary institutions incorporated the forwarding of graduate credentials (to potential employers) to a lesser extent than the public and private institutions. One proprietary college offered a course of instruction, 80 clock hours in duration, on career planning. Another offered a graduate telephone follow-up survey to assist unemployed graduates still seeking employment.

Two private four-year institutions in this region conducted employment workshops and mock interviews in order to prepare their graduates for entry into the jobs market.

One of fifteen public institutions utilized a computerized matching program in order to selectively match a graduate's skill with an employer's need.

South

Twenty-five questionnaires were mailed to each of the three types of post-secondary institutions, public, private and proprietary. The institutions were randomly selected from the states of Mississippi, Alabama, and Florida. The Southern region institutions represented a cross-section of urban and rural schools ranging in student full-time populations from a small institution (120 students) to a

large state university with a student full-time population of 17,765. Forty-six usable surveys were returned. This constitutes the largest number of returned documents by region (23.75 percent). Proprietary institutions returned eighteen (39.13 percent), the private sector returned fifteen (32.6 percent), and the public institutions returned thirteen (28.26 percent) usable questionnaires. The proprietary institutions were nearly equally divided between small (1-299 students) and medium (300-3,000 students) sizes. Of the thirteen public institutions responding to the survey, three were classified by student populations as small, six were medium-size, and four institutions had over 3,000 students in attendance. The private institutions were predominantly medium-size (10) with only five classified as large institutions (Table 2). Fifty percent of the proprietary institutions offered certificates/diplomas as the highest degree offering. The remainder of the proprietary school respondents offered credentials up to the associate degree (5), and four institutions granted a bachelors degree. Seven of the thirteen public institutions responding were junior-community colleges, three offered bachelors degrees, and three offered graduate-level degree programs.

Only one private two-year institution responded. Nine private institutions offered bachelors degrees and five were graduate level institutions. Twenty-two of the forty-six institutions in this region were clearly

vocational/career oriented institutions (Table 3).

Figure 6 indicates that proprietary institutions spent a significantly larger percentage of an average workday in job placement/job development activity. The public and private institutions in this region spent approximately the same amount of time as their Northeast and Midwest counterparts spent on job placement activities. A "T" test of paired samples indicated that there was a significant difference in the means of the proprietary and public institutions. The difference in the computed means between the private and public institutions was not significant (Figures 7,8).

The assistance rendered to the job placement functions (question number six) indicated that, in the Southern region, a significant correlation existed between the rank order of the options of the three institutional types, public, private, and proprietary. Additionally, there is a 100 percent correlation between the rank order of the public institutions in this region and the public institution's rank order in the Midwest region. The degree of correlation was computed using the Spearman Rho rank correlation coefficient of ranked data (Figure 9).

The rank order of the proprietary and private institutions approximates the relative rank order of the Midwest institutions. College-sponsored interviews and direct job application were again the options ranked number one and number two, respectively, in relative importance.

Figure 6

VARIANCE IN TIME SPENT PER DAY IN JOB PLACEMENT ACTIVITIES - SOUTH

Questionnaire Item #5

Names:	Proprietary	Private	Public
Means (Hours):	4.33	2.42	1.84

P=8.248154	DF1=2	DF2=42

The means of these samples are significantly different at the .01 level.

Figure 7

T TEST (TWO TAILED) FOR PAIRED SAMPLES - SOUTH

Questionnaire Item #5

Names:	Proprietary	Private
Means:	4.33	2.42

T=2.70	DF=30

The means of these two samples are significantly different at the .01 level

Figure 8

T TEST (TWO TAILED) FOR PAIRED SAMPLES - SOUTH

Questionnaire Item #5

Names:	Proprietary	Public
Means:	4.33	1.84

T=3.694829	DF=29

The means of these two samples are significantly different at the .01 level.

There was complete agreement on the rank order degree of importance in job placement assistance rendered to the three institutional types in "Faculty" involvement, "State Employment Agencies," and "Private Employment Agencies" (Figure 9).

In response to the question (number eight), "To what extent do you [The Job Placement Office] provide assistance?," all three institutional types provided the five services listed (Appendix). One proprietary institution required all students to attend a Career Search class prior to graduation. Two public institutions indicated that they participated in periodic job placement seminars with other universities in the region.

West

In the Western region, of the seventy-five surveys mailed, thirty-seven (49.3 percent) usable questionnaires were returned (Table 1). The proprietary institutions returned seventeen usable documents, the public institutions returned twelve, and the private post-secondary institutions returned eight. An analysis of the respondent institutions by student enrollment indicated that only four of the institutions were classified as small; two were proprietary, and two were private. Twenty-six institutions were classified as medium in the size of their enrollments and seven had a large enrollment. Six of the seven with large enrollments (over 3,000 students) were public institutions (Table 2).

Figure 9

ASSISTANCE RENDERED IN JOB PLACEMENT ACTIVITIES

BY INSTITUTIONAL TYPE - SOUTH

	Rank Order		
	A	B	C
	Proprietary	Private	Public
College Administrators	4	5	4
Faculty	3	3	3
State Employment Agencies	6	6	6
Private Employment Agencies	7	7	7
Classified Advertising	5	4	5
College Sponsored Employment Interviews	1	1	2
Direct Application	2	2	1

*Significant at the .01 level.

Correlation Coefficient

*A & B = .9642 T=8.1298

*B & C = .9285 T=5.5929

A & C = .9642 T=8.1298

Figure 10

VARIANCE IN TIME SPENT PER DAY IN JOB

PLACEMENT ACTIVITIES - WEST

Questionnaire Item #5

Names:	Proprietary	Private	Public
Means (Hours):	3.91	2.75	1.50

F=4.445369 DF1=2 DF2=34

Means of these samples are not significantly different at the .01 level.

A review of the institutions by highest degree offering indicated that only one proprietary institution offered a degree beyond the associate degree level. Nine of the twelve public institutions were community/junior colleges. In this region, of the respondent institutions, twenty-seven of the thirty-seven (73 percent) were primarily involved in career/vocational studies (Table 3).

The sample means of the institutional types were compared on questionnaire item number five, which asked, "How much of your average workday do you spend in job development?" The means of the samples were not significantly different, as the average proprietary institution job placement director spent 3.91 hours per day, compared to 2.75 hours for the job placement director at the private institutions and 1.50 hours at public institutions, in job placement activities. This latter figure was the least amount of time in the four regions dedicated to job placement activities (Figure 10). Again, the data only reflects the amount of time per day the respondent spends in the job placement activities and does not necessarily indicate the total amount of time spent by all assigned staff members.

Figure 11, "Assistance Rendered in Job Placement Activities," was evaluated using the Spearman Rank Order Correlation Coefficient. The variables based on the survey data involved judgements and opinions about the assistance each agency rendered in the graduate job placement activity.

Figure 11

ASSISTANCE RENDERED IN JOB PLACEMENT ACTIVITIES

BY INSTITUTIONAL TYPE - WEST

	Rank Order		
	A	B	C
	Proprietary	Private	Public
College Administrators	5	5	5
Faculty	3	3	3
State Employment Agencies	7	6	4
Private Employment Agencies	6	7	7
Classified Advertising	4	4	7
College Sponsored Employment Interviews	2	2	2
Direct Application	1	1	1

*Significant at the .01 level

Correlation Coefficient

*A & B = .9642 T=8.1298

A & C = .6785 T=2.0653

B & C = .7500 T=2.5354

Figure 12

VARIANCE IN GRADUATES SEEKING

EMPLOYMENT - NORTHEAST

Questionnaire Item #2

Names:	Proprietary	Private	Public
Means:	85.20	78.16	69.41

F=3.089346 DF1=2 DF2=38

The means of these samples are not significantly different at the .01 level.

There was a significant positive correlation (.9428) between the rank ordering of the proprietary and private institutions.

All three institutional types offered the student services of counseling, resume review, forwarding of credentials, on-campus interviews, and job search files/bulletin boards in their job placement activities. Job Fairs and referral services were unique features of the public institutions' offerings, however.

Question 2

> How are these schools fulfilling their role in preparing graduates to meet the needs of the marketplace and how well are these post-secondary institutions retaining their students until graduation

To determine if the post-secondary institutions were preparing their graduates to meet the needs of the marketplace, it was necessary to examine and compare the graduate job placement statistics of the proprietary, public, and private institutions. A regional study of the received data on questionnaire items 2, 3, 4, 9 and 10 was made. An analysis of the variance of the statistical means of the three institutional types indicated whether or not significant differences existed between the institutions. Where significant differences occurred, a "T" test for paired samples was conducted.

Northeast

The percent of graduates seeking employment (Figure

12) indicated that 85 percent of the proprietary school graduates sought employment immediately following graduation. This finding supported previous studies which indicated that 15 percent of proprietary school graduates either do not wish to go to work immediately following graduation or postpone their entry into the workforce by taking additional academic coursework (Cohen 1984). Seventy-eight percent of the graduates of private institutions in the Northeast region sought employment upon graduation, followed by the graduates from public institutions (69 percent). The means of the three institutional types were not significantly different.

Gaining employment upon graduation was a primary objective of 60 percent of all entering freshmen in the academic year 1984-1985 (Cohen 1984). The questionnaire asked the respondents," What percent of your most recent graduates seeking employment are successfully employed?" The means of the three sample groups (public, private, and proprietary) were not significantly different at the .01 level of significance (Figure 13). The proprietary institutions reported that 85 percent of their graduates who sought employment were employed. The private institutions reported a 78 percent graduate employment rate. Public institutions reported that nearly 70 percent of their graduates who had sought employment had found employment.

A follow-up question to the above sought the percentage of the most recently employed graduates gaining

Figure 13

VARIANCE IN GRADUATES EMPLOYED - NORTHEAST

Questionnaire Item #3

Names:	Proprietary	Private	Public
Means:	85.00	78.00	69.05

F=4.869511	DF1=2	DF2=38

The means of these samples are not significantly different at the .01 level.

Figure 14

VARIANCE IN GRADUATES EMPLOYED IN

THEIR CAREER AREA - NORTHEAST

Questionnaire Item #4

Names:	Proprietary	Private	Public
Means:	79.25	69.93	74.16

F=1.171272	DF1=2	DF2=38

The means of these samples are not significantly different at the .01 level.

employment in their selected careers. Graduates from proprietary institutions were gainfully employed in their selected career areas in 79 percent of the cases. Graduates from public institutions in the Northeast region were employed in their career areas in 74 percent of the cases, while private school graduates, were successful nearly 70 percent of the time. The means of the three institutional types were not significantly different (Figure 14). Therefore, the null hypothesis is accepted.

The length of time in weeks that graduates sought employment was examined. Significant differences between the institutional types were reported. The proprietary sector, on the average, placed its graduates in employment positions in 4.32 weeks, compared to 10.53 weeks for graduates from private institutions and 13.62 weeks for graduates from public institutions (Figures 15,16,17).

The ability of an institution to retain students in programs until completion has become an administrative concern for all types of educational institutions. All of the past studies on student retention/attrition have indicated, as Talley (1977) observed, that "The holding power of an institution is an important aspect of its effectiveness" (p.6). Whatever the reason for dropping out, attrition results in lost revenue to the institutions (Vest and Spino 1975).

This study attempted to determine whether any significant differences existed in the student attrition at

Figure 15

VARIANCE IN INTERVAL BETWEEN GRADUATION AND EMPLOYMENT - NORTHEAST

Questionnaire Item #10

Name:	Proprietary	Private	Public
Means (Weeks) :	4.32	10.53	13.62

F=10.87165	DF1=2	DF2=38

The means of these samples are significantly different at the .01 level.

Figure 16

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NORTHEAST

Questionnaire Item #10

Names:	Proprietary	Private
Means (Weeks):	4.32	10.53

T=4.932994	DF=27

The means of these two samples are significantly different at the .01 level.

Figure 17

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NORTHEAST

Questionnaire Item #10

Names:	Proprietary	Public
Means (Weeks):	4.32	13.62

T=4.091404	DF=24

The means of these two samples are significantly different at the .01 level.

the three institutional types: public, private, and proprietary.

On question number nine of the Graduate Profile of Education and Employment (Appendix), the respondents were asked to report their student retention rates. It was assumed by this researcher that the reported data would be consistent with the data submitted to the various accrediting and state licensing agencies. As a note of clarification, three different standards were noted on the returned questionnaires. They were:

1. The percentage of entering freshmen returning for their sophomore year.
2. The percentage of students completing a predetermined program of study.
3. The annualized rate of dropouts as a percentage of enrolled students.

In the Northeast region, the sample means of the three sample groups were significantly different. The private institutions in this region were able to retain three out of every four students by whatever measurement standard was used by the institutions. Proprietary institutions placed second in retention, reporting 64.21 percent. The public institutions reported losing, on the average, one student out of two who enrolled in the institution. A subsequent "T" test for paired samples indicated that significant statistical differences were recorded between the private and public school retention

rates only. The pairings between the proprietary/private and proprietary/public were not significant (Figures 18,19).

Midwest

Ninety-one percent of the graduates from the proprietary schools in the Midwest (Missouri) region seek employment immediately following graduation (Figure 20). The difference in means between the proprietary, public, and private institutions is significant as measured by the ANOVA "F" and "T" tests (Figures 21,22). Eighty-eight percent of the proprietary school graduates gain employment (Figure 23), and 93 percent of those employed have jobs in their career area (Figures 24,25,26). In summary, seventy-five out of every one hundred graduates from proprietary post-secondary institutions in this region are employed in jobs commensurate with their education.

Private post-secondary institutions graduate, on the average, 66 percent of their students who seek employment upon graduation. Seventy percent of those graduates are employed, and nearly 66 percent of the employed graduates are employed in their chosen careers. Therefore, out of one hundred graduates from private institutions, only thirty are successfully employed in their chosen discipline.

Graduates from public institutions in the Midwest region fare slightly better in job placement than do graduates from private institutions. On the average, forty-two of every one hundred graduates are employed in their career areas.

Figure 18

VARIANCE IN STUDENT RETENTION - NORTHEAST

Questionnaire Item #9

Names:	Proprietary	Private	Public
Means:	64.21	75.62	52.00

F=8.010788	DF1=2	DF2=38

The means of these samples are significantly different at the .01 level.

Figure 19

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NORTHEAST

Questionnaire Item #9

Name:	Private	Public
Means:	75.62	52.00

T=4.187897	DF=25

The means of these two samples are significantly different at the .01 level.

Figure 20

VARIANCE IN GRADUATES SEEKING EMPLOYMENT - MIDWEST

Questionnaire Item #2

Names:	Proprietary	Private	Public
Means:	91.84	66.44	76.86

F=5.352241 DF1=2 DF2=34

The means of these samples are significantly different at the .01 level.

Figure 21

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #2

Names:	Proprietary	Private
Means:	91.84	66.44

T=2.954577 DF=20

The means of these two samples are significantly different at the .01 level.

Figure 22

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #2

Names:	Proprietary	Public
Means:	91.84	76.86

T=2.973437 DF=26

The means of these two samples are significantly different at the .01 level.

Figure 23

VARIANCE IN GRADUATES EMPLOYED - MIDWEST

Questionnaire Item #3

Names:	Proprietary	Private	Public
Means:	88.67	70.77	79.42

The means of these samples are not significantly different at the .01 level.

Figure 24

VARIANCE IN GRADUATES EMPLOYED IN THEIR CAREER AREA - MIDWEST

Questionnaire Item #4

Names:	Proprietary	Private	Public
Means:	93.15	65.77	70.75

F=8.083401	DF1=2	DF2=34

The means of these samples are significantly different at the .01 level.

Figure 25

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #4

Names:	Proprietary	Private
Means:	93.15	65.77

T=4.223284 DF=20

The means of these two samples are significantly different at the .01 level.

Figure 26

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #4

Names:	Proprietary	Public
Means:	93.15	70.75

T=3.683602 DF=26

The means of these two samples are significantly different at the .01 level.

Proprietary institutions in the Midwest region are performing significantly better in job placement activities than are the public and private institutions, based on the mean placement statistics. In addition to the job placement statistical edge, the proprietary institutions place their graduates in employment positions in approximately one-half the time (5.15 weeks) needed for graduates from private institutions (9 weeks). Graduates from public institutions take 11.8 weeks to gain employment (Figures 27,28,29).

Lastly, in the Midwest region, proprietary institutions retain their students to graduation or program completion at a 75.92 percentage rate, compared to a 64.5 rate for private institutions and a 54.53 percent rate at public institutions (Figure 30). The difference in computed means is significant only between the proprietary and public institutions (Figure 31).

South

The Southern geographical region consisted of public, private, and proprietary institutions randomly selected from the states of Mississippi, Alabama, and Florida.

The average number of graduates seeking employment from the three institutional types varies significantly (Figure 32). Proprietary school graduates, in 84 percent of the cases, seek employment immediately upon graduation. However, only 66 percent of the graduates from both the public and private institutions seek employment. The number of graduates gaining employment, however, does not vary at a

Figure 27

VARIANCE IN INTERVAL BETWEEN GRADUATION AND EMPLOYMENT - MIDWEST

Questionnaire Item #10

Names:	Proprietary	Private	Public
Means:	5.15	9.00	11.80

F=7.190614 DF1=2 DF2=34

The means of these samples are significantly different at the .01 level.

Figure 28

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #10

Names:	Proprietary	Private
Means:	5.15	9.00

T=3.005445 DF=20

The means of these samples are significantly different at the .01 level.

Figure 29

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #10

Names:	Proprietary	Public
Means:	5.15	11.80

F=3.469108 DF=26

The means of these samples are significantly different at the .01 level.

Figure 30

VARIANCE IN STUDENT RETENTION - MIDWEST

Questionnaire Item #9

Names:	Proprietary	Private	Public
Means:	75.92	64.50	54.53

F=6.65314 DF1=2 DF2=34

The means of these samples are significantly different at the .01 level.

Figure 31

T TEST (TWO TAILED) FOR PAIRED SAMPLES - MIDWEST

Questionnaire Item #9

Names:	Proprietary	Public
Means:	75.92	54.53

T=3.3305 DF=26

The means of these samples are significantly different at the .01 level.

Figure 32

VARIANCE IN GRADUATES SEEKING EMPLOYMENT - SOUTH

Questionnaire Item #2

Names:	Proprietary	Private	Public
Means:	84.11	66.78	66.00

F=4.154741 DF1=2 DF2=42

The means of these samples are not significantly different at the .01 level.

significant rate between institutional types (Figure 33). Of those graduates employed, the proprietary sector has succeeded in assisting nearly 75 percent to gain employment in their chosen field. Graduates from private institutions successfully place 67 percent, compared to 53 percent placed by public schools (Figure 34). The length of time it takes graduates to find a full-time job commensurate with their training varied on the average from 4.8 weeks at proprietary institutions, to 9.6 weeks at public post-secondary schools, to 15.7 weeks, for graduates from private institutions in the Southern region (Figure 35). The computed difference in mean time was significant between the proprietary and private institutions only (Figure 36).

Student retention statistics were not significantly different among the institutions. The private and proprietary institutions reported rates of 67 percent, compared to rates of 58 percent from public post-secondary institutions (Figure 37).

West

From the western region (California), thirty-seven institutions responded. Seventeen of the institutions were proprietary, eight private, and twelve were public post-secondary institutions.

The number of proprietary school graduates seeking employment closely approximates the numbers from the Northeast and Midwest regions. The graduates from public and private institutions are less inclined to seek immediate

Figure 33

VARIANCE IN GRADUATES EMPLOYED - SOUTH

Questionnaire Item #3

Names:	Proprietary	Private	Public
Means:	74.16	68.35	59.73

F=2.228625	DF1=2	DF2=42

The means of these samples are not significantly different at the .01 level.

Figure 34

VARIANCE IN GRADUATES EMPLOYED IN THEIR CAREER AREA - SOUTH

Questionnaire Item #4

Names:	Proprietary	Private	Public
Means:	74.72	66.89	53.46

F=4.398088	DF1=2	DF2=42

The means of these samples are not significantly different at the .01 level.

Figure 35

VARIANCE IN INTERVAL BETWEEN GRADUATION AND EMPLOYMENT - SOUTH

Questionnaire Item #10

Names:	Proprietary	Private	Public
Means (Weeks):	4.80	15.71	9.61

F=10.32253	DF1=2	DF2=42

The means of these samples are significantly different at the .01 level

Figure 36

T TEST (TWO TAILED) FOR PAIRED SAMPLES - SOUTH

Questionnaire Item #10

Names:	Proprietary	Private
Means (Weeks):	4.80	15.71

T=4.44419 DF=30

The means of these two samples are significantly different at the .01 level.

Figure 37

VARIANCE IN STUDENT RETENTION - SOUTH

Questionnaire Item #9

Names:	Proprietary	Private	Public
Means:	67.22	67.21	58.53

F=1.295534 DF1=2 DF2=42

The means of these samples are not significantly different at the .01 level.

Figure 38

VARIANCE IN GRADUATES SEEKING EMPLOYMENT - WEST

Questionnaire Item #2

Names:	Proprietary	Private	Public
Means:	86.05	65.25	53.55

F=8.495594 DF1=2 DF2=34

The means of these samples are significantly different at the .01 level.

employment (Figures 38,39,40). Of the job seekers, 87.8 percent from proprietary institutions are successful (Figure 41). In addition, 86 percent of those graduates employed are employed in their career area. The relatively low mean value of the public institutions in these job placement rates accounted for the computed significant differences (Figures 40,42,44). Graduates from public institutions in this region stand the least chance of the three, on the average, of gaining employment in their chosen areas, as only nineteen of one hundred graduates reach this goal. This is the lowest success rate of any institutional group surveyed throughout the four geographical areas of the country (Figure 43).

In this region, however, it was interesting to note that graduates from public institutions were unemployed only 2.63 weeks on the average, following graduation. Proprietary school graduates took 4.23 weeks to gain employment. Private institution graduates were seeking jobs for 6.63 weeks (Figure 45). The reported data suggests that employment opportunities in this region are readily available for those graduates seeking employment immediately following graduation.

Student retention rates in this region indicated that the sample means of all three institutional types were not significantly different. Proprietary institutions were reporting student retention rates of 74.11 percent compared to 66.87 percent for private schools and 59.16 percent for

Figure 39

T TEST (TWO TAILED) FOR PAIRED SAMPLES - WEST

Questionnaire Item #2

Names:	Proprietary	Private
Means:	86.05	65.25

T=3.740405 DF=23

The means of these two samples are significantly different at the .01 level.

Figure 40

T TEST (TWO TAILED) FOR PAIRED SAMPLES - WEST

Questionnaire Item #2

Names:	Proprietary	Public
Means:	86.05	53.55

T=3.844347 DF=27

The means of these two samples are significantly different at the .01 level.

Figure 41

VARIANCE IN GRADUATES EMPLOYED - WEST

Questionnaire Item #3

Names:	Proprietary	Private	Public
Means:	87.85	75.37	59.89

F=14.82735 DF1=2 DF2=34

The means of these samples are significantly different at the .01 level.

Figure 42

T TEST (TWO TAILED) FOR PAIRED SAMPLES - WEST

Questionnaire Item #3

Names:	Proprietary	Public
Means:	87.85	59.89

T=5.853038 DF=27

The means of these two samples are significantly different at the .01 level.

Figure 43

VARIANCE IN GRADUATES EMPLOYED IN THEIR CAREER AREA - WEST

Questionnaire Item #4

Names:	Proprietary	Private	Public
Means:	85.94	69.75	60.00

F=10.51602 DF1=2 DF2=34

The means of these samples are significantly different at the .01 level.

Figure 44

T TEST (TWO TAILED) FOR PAIRED SAMPLES - WEST

Questionnaire Item #4

Names:	Proprietary	Public
Means:	85.94	60.00

T=5.231011 DF=27

The means of these samples are significantly different at the .01 level.

Figure 45

VARIANCE IN INTERVAL BETWEEN GRADUATION AND EMPLOYMENT - WEST

Questionnaire Item #10

Names:	Proprietary	Private	Public
Means (Weeks):	4.23	6.62	2.62

F=4.581169	DF1=2	DF2=34

The means of these samples are not significantly different at the .01 level.

Figure 46

VARIANCE IN STUDENT RETENTION - WEST

Questionnaire Item #9

Names:	Proprietary	Private	Public
Means:	74.11	66.87	59.16

F=2.58167	DF1=2	DF2=34

The means of these samples are not significantly different at the .01 level.

the public institutions (Figure 46).

National Summary

The institutional questionnaire data from the four regions-- Northeast (New York), Midwest (Missouri), South (Mississippi, Alabama, Florida), and West (California)-- was combined and an analysis made. The performance variables examined were graduate job placement activities and the student retention outcomes of proprietary, private, and public institutions.

By viewing the institutional types on a national scale, a conclusion can be drawn as to the state of the art of career education in this country. Further comparisons of regional data based on national norms becomes more meaningful. Students, as products and pursuers of career education, may wish to examine the various educational options available to them and make a prudent choice, based on their own consideration of time, money, and geographical contraints.

An analysis of variance was performed on the data, which were sorted by institutional type. The "F" test and the subsequent "T" test were used to determine whether or not to accept the null hypothesis at the .01 level of significance. The null hypothesis stated that there would be no significant differences between the institutional types in terms of the performance variables of job placement and student retention.

Question 1

What is the state of the art of career education in this country

Questionnaires were mailed, in July-August, 1985, to the student services/job placement directors of 300 institutions in four geographical areas of the country. On October 15, 1985, 160 usable documents were returned. The returned usable documents represented a cross-section of post-secondary institutions in the country.

Of the 160 returned usable questionnaires, sixty-one (38 percent) were from proprietary schools, fifty-two (33 percent) were from public post-secondary institutions, and forty-seven (29 percent) were from private institutions (Table 1).

A review of the institutions by full-time student enrollments indicated that ninety-seven (61 percent) of the respondents were from medium-size institutions (300-3,000 students) while thirty-four (21 percent) were from large institutions. Of the twenty-nine small institutions (1-299 students) responding, twenty-one were proprietary (Table 2).

A review of the institutions by the highest degree they offered (Table 3) indicated that eighty-seven (54 percent) of the institutions were offering education at the certificate/diploma/associate degree level. This level is generally perceived to be career oriented. This researcher was unable to determine how many of the bachelors degree institutions or graduate-level institutions also offered lower level credentials. The returned data does support the

previously cited research that indicated that nearly 50 percent of all entering freshmen were enrolled in career-oriented programs.

The national summary of the Job Placement/Student Services Assistance Functions is presented in Figure 47. Response items "A" through "G" were weighted by the relative values assigned. A rank order based on the mean value of each item was made. A computation of the coefficient of rank correlation from the converted data was constructed.

There is a positive rank correlation of the items between the institutional types of post-secondary institutions. There are, therefore, no apparent differences in the rank ordering between institutional types.

Question number five of the survey instrument asked the respondents, "How much of your average workday (hours) do you spend in job development?"

An analysis of variance between the means of the institutional types indicated that the means were significantly different.

The respondents from proprietary institutions spent an average of 3.89 hours per workday in job placement/job development activities. Private institutions spent 2.34 hours per workday, and public school student service/job placement activities consumed 1.90 hours (Figure 48). The computed differences in means was significant only between the proprietary and private, and between the proprietary and public, institutions. The data only suggests that a

Figure 47

ASSISTANCE RENDERED IN JOB PLACEMENT ACTIVITIES

BY INSTITUTIONAL TYPE - NATIONAL SURVEY

	Rank Order		
	A	B	C
	Proprietary	Private	Public
College Administrators	5	5	4
Faculty	3	3	3
State Employment Agencies	7	6	6
Private Employment Agencies	6	7	7
Classified Advertising	4	4	5
College Sponsored Employment Interviews	1	2	2
Direct Application	2	1	1

*Significant at the .01 level

*A & B = .9285 T=5.5929

*A & C = .8928 T=4.4319

*B & C = .9642 T=8.1315

difference exists between the respondents of the institutions and does not indicate how much total time was spent in the job placement activities if more than one person is employed in this function.

Question 2

How are these schools fullfilling their role in preparing graduates to meet the needs of the marketplace, and how well are these post-secondary institutions retaining their students until graduation

The percent of graduates seeking employment immediately following graduation was examined. Graduates from proprietary institutions, as expected, sought employment at a rate significantly higher than graduates from private and public post-secondary institutions. The data (Figures 49,50,51) indicated that a small percentage of proprietary institution graduates seek additional post-secondary education immediately following graduation. The data does not indicate, however, the number of public and private school graduates who after completing one education goal decide to stay in school and thus postpone employment.

Of the graduates who sought employment, however, a meaningful summary (Figure 52) shows that 83 percent of the proprietary graduates had accepted employment. Graduates from private and public institutions were less successful in their quest for employment (Figures 53,54).

To further investigate the graduates' placement success, question number four of the survey instrument

Figure 48

VARIANCE IN TIME SPENT PER WORKDAY IN JOB PLACEMENT ACTIVITIES - NATIONAL SUMMARY

Questionnaire Item #5

Names:	Proprietary	Private	Public
Means (Hours):	3.8951	2.3478	1.9038

F=15.15916	DF1=2	DF2=157

The means of these samples are significantly different at .01 level.

Figure 49

VARIANCE IN GRADUATES SEEKING EMPLOYMENT - NATIONAL SURVEY

Questionnaire Item #2

Names:	Proprietary	Private	Public
Means:	86.51	70.16	66.28

The means of these samples are significantly different at the .01 level.

Figure 50

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #2

Names:	Proprietary	Private
Means:	86.51	70.16

T=5.116495	DF=106

The means of these samples are significantly different at the .01 level.

Figure 51

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #2

Names:	Proprietary	Public
Means:	86.51	66.21

T=5.568789 DF=112

The means of these two samples are significantly different at the .01 level.

Figure 52

VARIANCE IN GRADUATES EMPLOYED - NATIONAL SUMMARY

Questionnaire Item #3

Name:	Proprietary	Private	Public
Means:	83.41	73.19	67.60

F=12.38577 DF1=2 DF2=160

The means of these samples are significantly different at the .01 level.

Figure 53

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #3

Names:	Proprietary	Private
Means:	83.41	73.19

T=3.316839 DF=106

The means of these two samples are significantly different at the .01 level.

asked, "Of those graduates employed, what percent gained employment in their chosen career?" Again, graduates from proprietary institutions, according to the national data, gained employment success at an 82.68 percent rate, compared to a rate of 68.18 percent for graduates from private institutions and a 64.73 percent rate for graduates from public institutions (Figures 55,56,57).

Therefore, based upon the mean from survey items number 2, 3, and 4, out of every one hundred graduates from proprietary institutions, sixty of the graduates were employed in the field of their choice. A similar analysis of the graduates from private institutions indicated that thirty-five of one hundred graduates had successfully gained employment in their chosen career area, and twenty-eight out of one hundred graduates from public institutions had gained employment in their chosen field.

The amount of time consumed in the job search activities following graduation clearly indicated that graduates from career -oriented proprietary institutions gained employment in their chosen field at a rate significantly faster than their public and private school counterparts (Figures 58,59,60).

Student Retention

The same type of analysis was administered for the student retention data. The respondents were asked to report their student retention rates. The following null hypothesis was tested for the three institutional types:

Figure 54

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #3

Names:	Proprietary	Public
Means:	83.41	67.60

T=4.836443 DF=112

The means of these two samples are significantly different at the .01 level.

Figure 55

VARIANCE IN GRADUATES EMPLOYED IN THEIR CAREER AREA - NATIONAL SUMMARY

Questionnaire Item #4

Names:	Proprietary	Private	Public
Means:	82.68	68.16	64.73

F=15.79148 DF1=2 DF2=157

The means of these samples are significantly different at the .01 level.

Figure 56

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #4

Names:	Proprietary	Private
Means:	82.68	68.16

T=4.257209 DF=106

The means of these two samples are significantly different at the .01 level.

Figure 57

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #4

Names:	Proprietary	Public
Means:	82.68	64.73

T=5.355642 DF=112

The means of these samples are significantly different at the .01 level.

Figure 58

VARIANCE IN INTERVAL BETWEEN GRADUATION AND EMPLOYMENT - NATIONAL SUMMARY

Questionnaire Item #10

Names:	Proprietary	Private	Public
Means (Weeks):	4.61	11.21	9.55

F=19.47523 DF1=2 DF2=157

The means of these samples are significantly different at the .01 level.

Figure 59

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #10

Names:	Proprietary	Private
Means (Weeks):	4.61	11.21

T=6.846834 DF=106

The means of these two samples are significantly different at the .01 level.

There will be no significant difference between persisters, academic dropouts, and those students who voluntarily withdraw, with respect to the three institutional types (proprietary, public, and private).

The retention rates from this study, based on data collected from 160 post-secondary institutions in four separate geographical areas of the country, is consistent with the previously cited Wilms (1980) and the Jung (1980) studies. This researcher computed the student retention rates of the 160 respondent institutions by type of control. Proprietary institutions retained, on the average, 70.25 percent of their students until program completion, compared to a rate of 69.47 percent for private institutions, and a low of 56.01 percent for public post-secondary institutions (Figures 61,62,63).

The Wilms (1980) study determined that 69 percent of the proprietary students had graduated, compared with 46 percent of the public post-secondary institutions' students.

Jung (1980) indicated that close to 70 percent of independent school students either completed their programs of study or left before completion, in order to accept a position in their desired field. Only 55 percent of the public vocational school students completed their programs of study.

Figure 60

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #10

Names:	Proprietary	Public
Means (Weeks):	4.61	9.55

T=4.928789 DF=112

The means of these two samples are significantly different at the .01 level.

Figure 61

VARIANCE IN STUDENT RETENTION - NATIONAL SUMMARY

Questionnaire Item #9

Name:	Proprietary	Private	Public
Means	70.25	69.47	56.01

F=12.85428 DF1=2 DF2=160

The means of these samples are significantly different at the .01 level.

Figure 62

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #9

Names:	Proprietary	Public
Means:	70.25	56.01

T=4.45277 DF=96

The means of these two samples are significantly different at the .01 level.

Figure 63

T TEST (TWO TAILED) FOR PAIRED SAMPLES - NATIONAL SUMMARY

Questionnaire Item #9

Names:	Private	Public
Means:	69.47	56.01

T=4.45277 DF=96

The means of these two samples are significantly different at the .01 level.

CHAPTER V

SUMMARY, CONCLUSIONS, and RECOMMENDATIONS

Summary

Introduction

Career education programs are established to serve students by preparing them for employment. Employment needs are ascertained by first surveying the regional employers and then developing employment trends. Post-secondary institutions in the locale must then weigh the educational training costs in light of potential gains in student enrollments. Public sector training costs are funded through local, state, and federal agencies. Private and Independent (proprietary) institutions fund their training programs through tuition and corporate endowments, or religious affiliations.

Career-oriented courses of study accounted for nearly one-half of all entering freshmen in the 1984-85 school year. Vocational education programs alone cost the American tax payer $845.9 million dollars in the fiscal 1986 school year.

The purpose of the study was to determine how post-secondary proprietary institutions compare with public and private post-secondary schools in the selected descriptive measures in education of career-oriented students.

A second purpose of this study was to provide information on a regional basis so that one might be better able to evaluate distinguishing characteristics between the public, private, and proprietary institutions in terms of graduate job placement assistance and student retention efforts.

Lastly, this study attempted to provide the data necessary for student services directors to make the necessary changes if needed in order to provide timely and effective graduate employment opportunity services.

Statement of the Problem

The problem this study examined was twofold:

1. To determine what is the state of the art of career education in this country. The inherent subproblems were to determine background information on the institutions surveyed, the degrees offered, and the job placement services rendered.
2. To determine how these schools were fulfilling their role in preparing graduates to meet the needs of the marketplace. The inherent subproblems were to determine how well these post-secondary

institutions were retaining their students until graduation.

Procedures

The institutions surveyed in this study consisted of 300 accredited colleges and universities in four diverse geographical areas of the country: Northeast (New York), Midwest (Missouri), South (Mississippi, Alabama, Florida), and West (California). Twenty-five post-secondary institutions (public, private, and proprietary) from each of the areas were randomly selected. A letter of transmittal and a ten-item questionnaire were mailed to the Job Placement Officer/Director at each of the selected institutions in August, 1985.

Instrumentation

The survey instrument for the post-secondary institutions was designed to provide information about the characteristics of the institutions, the scope of their graduate job placement activities, graduate employment practices, and student retention. The survey instrument was designed, furthermore, to present regional and national comparisions of career education alternatives and to determine which of the career education institutional types were performing in society's best interest in terms of the performance variables, graduate job placement, and student retention.

Validation of the Questionnaire

Institutional job/placement officers at 120 proprietary, private, and public institutions were surveyed in August, 1984, in order to determine the content validity of the questionnaire. The institutions were randomly selected from four geographical areas of the country: Northeast (New York), Midwest (Missouri), South (Mississippi, Alabama), and West (California). Of the 120 questionnaires mailed, fifty-two usable documents were returned. As a result of the respondents' replies, two questions on the survey instrument were changed in order to clarify informational needs. In addition, due to a poor institutional response rate in the Southern region, institutions from the State of Florida were included in the follow-up study.

Data Collection

Three hundred survey instruments were mailed to the public, proprietary, and private post-secondary institutions' job placement/student services officers in four geographical areas of the country: Northeast, Midwest, South, and West. The survey instruments were mailed the first week of August, 1985. A letter of transmittal introduced the questionnaire, the objective of the study, and the scope of the information requested. The data base was expected to represent a cross-section of geographical differences, rural and urban, industrial and agricultural, and densely and thinly populated regions of the country.

On October 10, 1985, 160 usable questionnaires (53 percent of those mailed) were returned. Seven survey instruments were returned with little useful information, and two were undeliverable. Three institutions responded with notes indicating that they would not respond due to a perceived confidentiality question or because the information sought was not applicable to their institutions. Therefore, the total number of institutions responding was 172 (57 percent).

Data Analysis

The methods for analyzing the data were both statistical and descriptive. Therefore, some of the data were summarized with figures, means, and percentages. Others were tested statistically, by means of analysis of variance and correlation. The instruments were designed to:

1. Analyze the data for public, private, and proprietary schools, according to geographical region, in order to determine relationships among the characteristics of the schools, such as size, type of organization, and the highest degree offered.

2. Test if similarities exist between the three institutional types in terms of the graduate placement activities and job placement services offered, by means of rank order correlation, using Spearman's Rho Rank-Order Correlation Coefficient.

3. Test the independence of graduate job placement percentages for the institutional types, by means of

analysis of variance "F" and "T" tests.

4. Test the independence of student retention percentages for the institutional types, by means of analysis of Variance "F" and "T" tests.

Findings

1. Of the total schools (160) in this study, sixty-one (38 percent) were proprietary, fifty-two (33 percent) public, and forty-seven (29 percent) private.

2. The institutional response was virtually uniform throughout the four geographical areas of the country.

3. Sixty-one percent (97) of the 160 institutions were classified as medium-size (300-3,000 full-time students). The remainder were nearly equally divided between small (1-299) and large institutions (over 3,000 full-time students).

4. Proprietary institutions were the only institutional type to offer, as a highest degree, the certificate or diploma.

5. Fifty-five institutions (34 percent) offered only associate degrees, thirty-five of the respondent institutions offered baccalaureate degrees, and thirty-eight were classified as graduate- level institutions. The four-year and graduate-level institutions were primarily publicly or privately controlled.

6. There is a significant relationship between the size of the institution and the organizational type of institution. The small institutions were more likely to be proprietary, while the larger institutions were more likely

to be public.

7. The institutions in the Midwest and South were more likely to be small.

8. In response to the question, "How much of your average workday do you spend in job development? ___ hours," proprietary institutions in all four geographical areas of the country replied that they spent more time per day than their public and private counterparts. Public institutions generally spend the least amount of time in those student service functions.

9. In determining the rank order correlation between the institutional types in terms of the assistance rendered to the job placement activities by college administrators, faculty, state employment agencies, private employment agencies, classified advertisements, college-sponsored interviews, and direct applications, the correlation was found to be significant between the proprietary and private institutions in three of the four geographical regions. College-sponsored interviews were the most beneficial, and assistance rendered by private employment agencies was the least helpful in job placement.

10. There was a general consensus among the institutional types and regions that most institutions offered job placement assistance in counseling, resume review, forwarding credentials, on-campus interviews, and job search file/bulletin boards.

11. Analysis of the data indicated that there was a

significant difference in the percentage of graduates seeking employment at the three institutional types. Approximately 85 percent of all proprietary school graduates sought employment immediately after graduation, compared to 70 percent of the private school graduates and 66 percent from public post-secondary institutions. Graduates from Midwestern proprietary institutions sought employment at a 91.84 percent rate, while graduates from public institutions in the Western region sought employment at only a 53.55 percent rate.

12. Proprietary school graduates were more likely to gain employment at a significantly higher rate than were graduates from private or public schools.

13. Graduates from proprietary institutions were far more likely to gain employment in their career area than were graduates from public and private schools. Graduates from Midwestern proprietary institutions gained employment in their chosen field at a 93.15 percent rate, compared to a low rate of 53.46 percent from public institutions located in the Mississippi-Alabama-Florida region.

14. The average length of time that graduates remained unemployed was examined. The national summary indicated that graduates from proprietary institutions took an average 4.61 weeks to gain employment in their field of study, compared to 9.55 weeks for public and 11.21 weeks for private school graduates. Graduates from the Western region spent less time in finding suitable employment than from any

other region surveyed. Employment opportunities in this region appears to be optimal for graduates from public institutions. They spend only 2.63, weeks on the average, seeking employment commensurate with their education.

15. Private and proprietary institutions were more likely to retain their students until graduation than were public schools. Midwestern and Western proprietary schools retained three-out-of-four students until graduation compared to Northeastern public institutions, which were able to retain only 50 percent of their student body.

Conclusions

For students desiring an effective entry vehicle into the job marketplace, three education alternatives are available. They are career-oriented programs, conducted at public two and four-year post-secondary institutions, private institutions, and proprietary institutions.

Proprietary post-secondary institutions offer generally short- term, discipline-intensive training programs designed to fill an immediate need in the marketplace. The data suggest that such schools are a valuable resource to the nation, the marketplace, and the student. With a history that reaches back over 250 years, America's proprietary institutions have developed a specialized educational expertise unmatched by public and private institutions. Graduates from these specialized training institutions not only sought employment at a higher rate, they gained employment--and employment in their field

of study, at a significantly higher rate than their private and public school counterparts.

Administrators at many of the public and private institutions have recently recognized the value of career education as a source of student enrollments. Thus, the growth of community and vocational educational programs has evolved. Student services/job placement activities have taken on a new emphasis in even the most traditional liberal arts institutions. There was a significant correlation between the job placement activities among the three types of institutions.

Student attrition is a problem of national concern. The data from this study indicates that the reported student retention rates have not changed over the past five years, since those reported by Wilms (1980) and Jung (1980). The private and proprietary institutions have significantly higher rates of retention than those of public post-secondary institutions.

It appears from the information gathered by this researcher that career education in this country is performing a beneficial role in the educational structure of our society and are fulfilling the job placement needs of industry.

These specialized institutions as identified in this study are heavily career and skill oriented with sometimes, however, narrow educational goals. They are responsive to the needs of a market driven technological knowledge based

society. While many institutions today tend to excel in preparing students for employment many tend not to focus on the broad aspects of a liberal education. While many of this nation's higher education institutions purport to provide both a liberal education and job skills, they have been accused of doing neither very well.

The message is clear. The larger, public and private colleges and universities are being challenged by the smaller, skill, and career-oriented institutions to clarify their mission. In these times of increasingly scarce resources it is not possible nor economically feasible to offer a comprehensive array of high quality programs. Postsecondary institutions should simply do what they do best. They should offer only those programs for which they have the appropriate human, financial, and physical resources needed to achieve high quality education.

Given the increasing federal budget deficit and the concurrent increased demand for the tax dollar, the business community will have to look to the private and proprietary sector to provide capital for job related training. Due to budgetary constraints on the public institutions and the inherent difficulties they have in responding quickly to the job market needs, the private and proprietary institutions will have to absorb a larger part of the job training workload. Moreover, the concentrated nature of skill intensive programs and schools is viewed as encouraging student enrollment in that the short duration of the program

minimizes disruption of other aspects of the student's life and places the student in the workforce sooner.

Unlike the larger tradition bound institutions, the smaller, private, and proprietary institutions admit new students into the institution every four to six weeks. Such procedures facilitate quick transition from selection of a career or employment goal, obtaining the training and getting the job. The schools operate year-round thereby maximizing the effective use of facilities.

The changing demographics cited in this study of the traditional college-age student population suggests that institutions serving students beyond the traditional ages of 18 to 24 years of age will attract a larger percent of the total number of enrollments. Students become more likely to seek vocational education than liberal arts education the older they are at the time of enrollment. Studies relating to the motivation of adult students suggest that students with prior work experience become more career-oriented in their selection of post-secondary institutions.

Lastly, to succeed in the fullest sense the graduates of American colleges and universities must see themselves as able to shape the world in which they live and not simply as living in a world to which they must adapt. The focus of this research has been on the need for greater expertise but it is clear that technical job oriented expertise alone is not enough. The graduates of American post-secondary institutions must be more entrepreneurial, more creative,

more flexible, and most importantly, they must be more internationally minded.

In the immediate future, post-secondary institutions must not only contribute research, technology, and able graduates, but an enlightened and progressive atmosphere as well. They have a major role in developing the new civic responsibilities tomorrow's leaders must assume. Jean-Pierre Chevenement, French Minister of Education said in a recent Chronicle of Higher Education article that which best summarizes the state of higher education: universities should be seen by the whole nation as "the keys to the future" (Dickson, 1986 p. 41).

Recommendations for Further Research

1. Determine whether corporate in-house training programs will have an impact on the public, private, and proprietary institutional enrollments in career educational programs.

2. Determine if regional differences in graduate job placement percentages are influenced by factors such as age, race, and sex.

3. Determine the extent to which media advertising affects student enrollments.

4. There is a need for further research into public post-secondary education to help explain why students drop out at nearly a 50 percent rate.

APPENDIX

RICHARD P. SWANSON
101 Estates Drive
Salina, KS 67401

GRADUATE PROFILE OF EDUCATION AND EMPLOYMENT

_____

_____

_____

_____

Dear Job Development Officer:

The enclosed questionnaire seeks to evaluate the success of students who have been enrolled in career-oriented programs in your institution. It is part of a Doctoral Dissertation Study entitled "Career Education, A Comprehensive Look at Alternatives."

The information will be used to assist current and future students in making career decisions and to evaluate the job development services of public, private and proprietary institutions.

Your reply to this questionnaire will be held in strict confidence and will be most useful in finding out how well colleges are fulfilling graduate placement needs.

Thank you for your participation.

Sincerely,

Richard P. Swanson

INSTRUCTIONS

Please answer each question below. Fill in the space or circle the appropriate letter or number

1. Degrees offered by your college
   A. Certificate or Diploma
   B. Associate Degree
   C. Bachelors Degree
   D. Other (Specify)_____

2. What percent of your most recent graduates sought employment?
   _____%

3. What percent are successfully employed?_____%

4. Of those employed, what percent gained employment in their chosen career?_____%

5. How much of your average workday do you spend in job development?
   _____Hrs.

6. How helpful were each of the following in placing students and locating job opportunities?

	Not at all	Not very	Moderately		Very
A. College Administrators	1	2	3	4	5
B. Faculty	1	2	3	4	5
C. State Employment Agencies	1	2	3	4	5
D. Private Employment Agencies	1	2	3	4	5
E. Classified Ads	1	2	3	4	5
F. College Sponsored Interviews	1	2	3	4	5
G. Direct Application	1	2	3	4	5

7. Do you maintain an active placement file on your graduates?
   _____yes _____no

8. To what extent do you provide assistance?
   A. Counseling
   B. Resume review
   C. Forwarding Credentials
   D. On campus interviews
   E. Job search file/bulletin boards
   F. Other (Specify)_____

9. What is your student retention rate?_____%

10. On the average, what is the length of time it took your graduates to find a full time job commensurate with their training?
    _____weeks.

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CERTIFICATE OF ORIGINALITY

This is to certify that the Doctoral Dissertation, "A Market-Place Assessment of Career Education Alternatives" is a complete and original work by Richard P. Swanson.

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